

# EXP Clawbot Build Instructions





280-7735-752

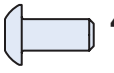
# Parts List

All EXP Control System, gears, wheels, wires, and structure are not to scale  
All other parts listed are 1:1 scale.

 **46x** #8-32 Low Profile Nut

 **4x** #8 0.032" Thick Washer

 **8x** Star Drive Screw  
8-32 x 0.250" Locking

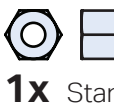
 **42x** Star Drive Screw  
8-32 x 0.375"

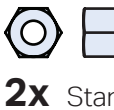
 **19x** Star Drive Screw 8-32 x 1.000"

 **8x** High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)

 **4x** High Strength Shaft Adapter  
(#8 Round Bore, 1/2" Long)

 **4x** Standoff 0.50"

 **1x** Standoff 1.00"


 **2x** Standoff 2.00"

 **15x** Rubber Shaft Collar

 **1x** 12T High Strength Gear


 **10x** #8 Click-On Spacer 0.125"

 **10x** #8 Click-On Spacer 0.250"


 **10x** 1 Post Standoff Retainer  
with Bearing Flat

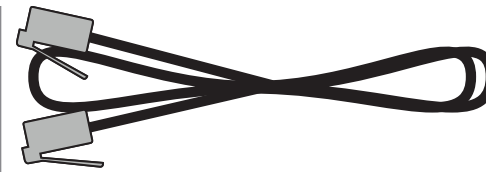
 **8x** 1 Post Standoff Retainer

 **5x** Low Profile Bearing Flat

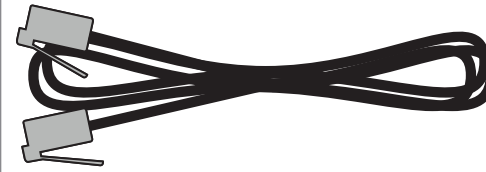
 **9x** Shaft Collar Retainer  
with Bearing Flat

 **2x** 1x4 Plastic Linkage Beam

 **2x** 1x5 Crank Arm with 23T Gear



**3x** 200mm Smart Cable



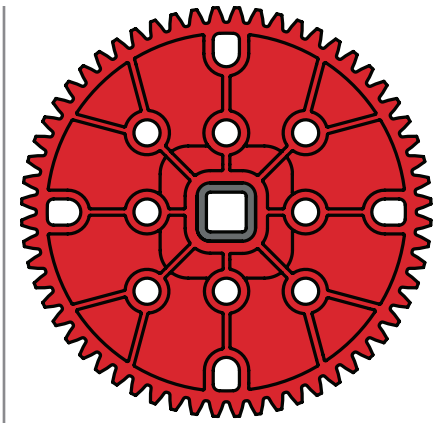
**1x** 600mm Smart Cable

**2x** 5" Shaft

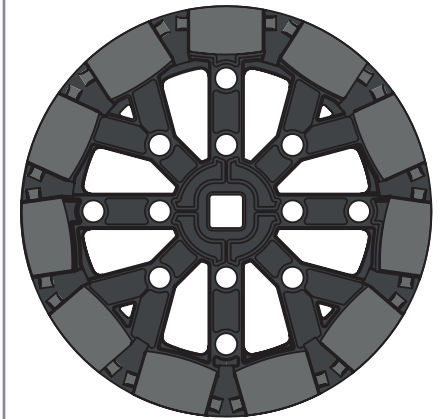
**2x** 2.5" Capped Shaft

**2x** 2.5" Shaft

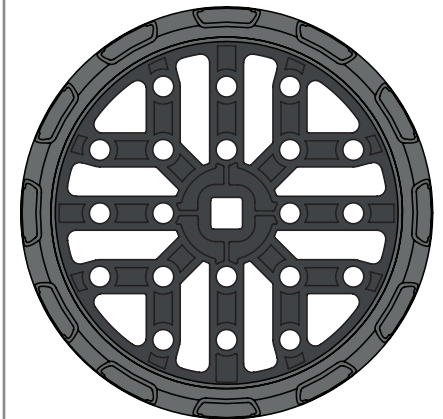
**4x** 2" Shaft



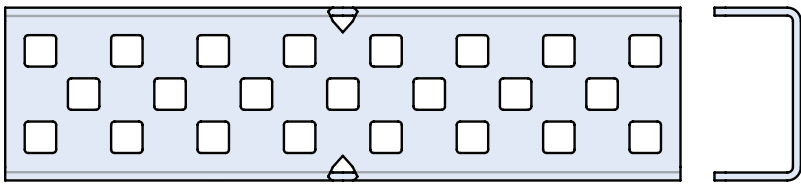
**1x** 60T High Strength Gear



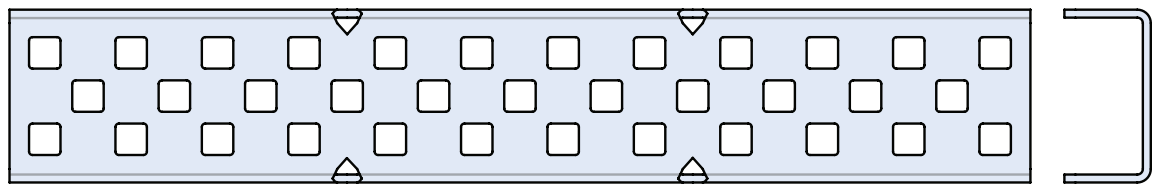
**2x** 3.25" (260 mm Travel)  
Anti-Static Omni-Directional Wheel



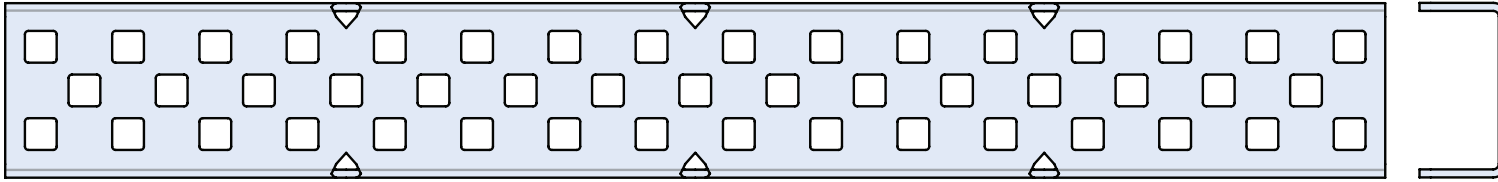
**2x** 3.25" (260mm Travel)  
Anti-Static Wheel



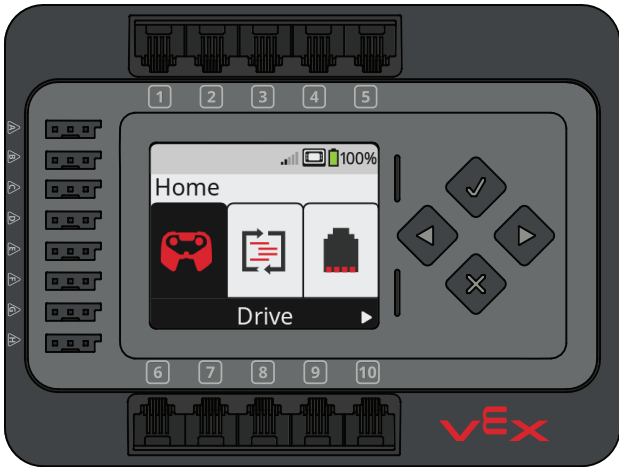
**4x** 1x2x1x8 C-Channel



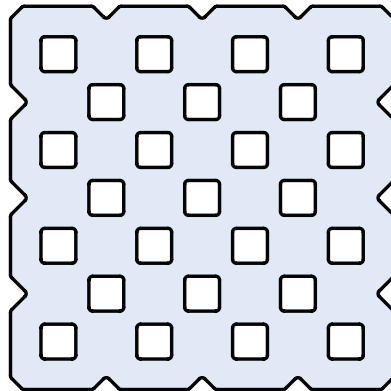
**4x** 1x2x1x12 C-Channel



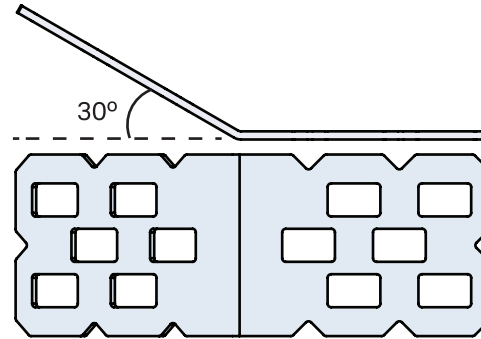
**6x** 1x2x1x16 C-Channel



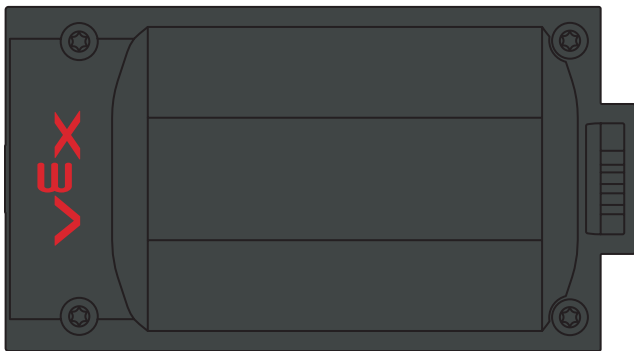
**1x** EXP Robot Brain



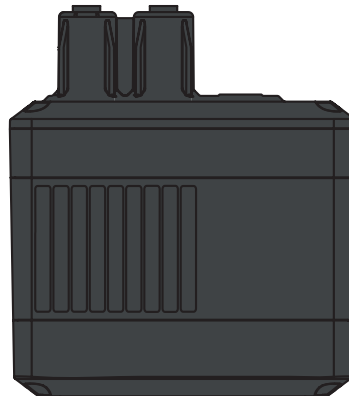
**1x** 4x4 Flat Plate



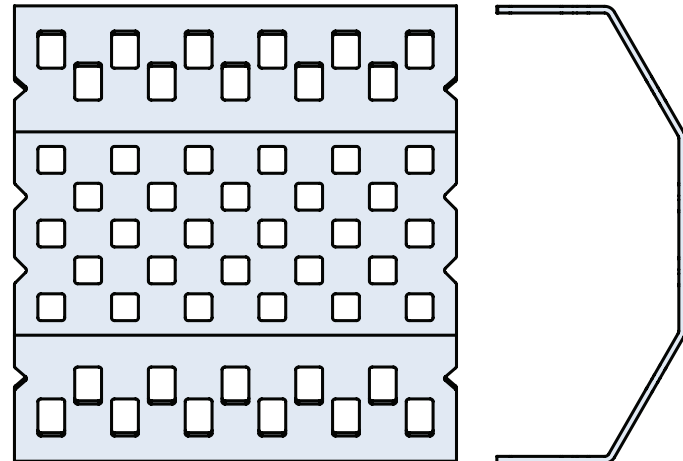
**2x** 30 Degree Bent Gusset



**1x** EXP Robot Battery Li-Ion 2500 mAh



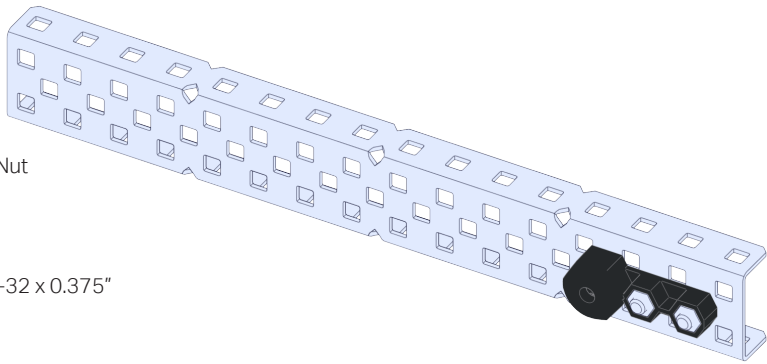
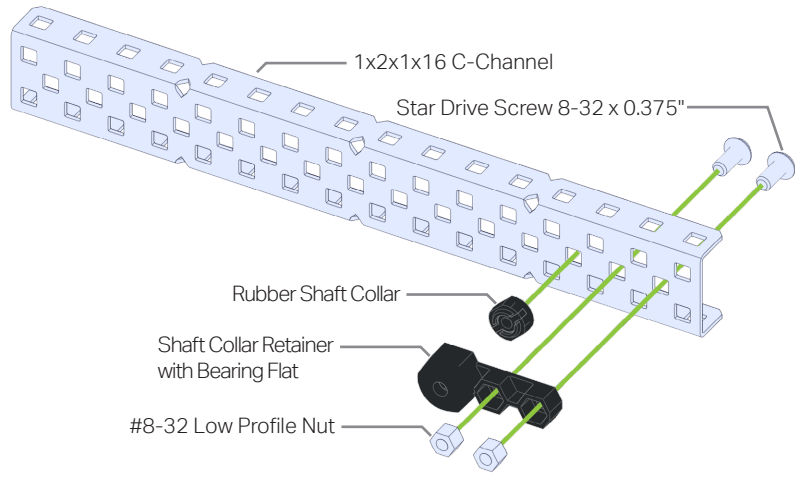
**4x** V5 Smart Motor (5.5W)



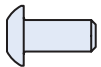
**1x** EXP Robot Brain Mounting Bracket



2X



4x #8-32 Low Profile Nut



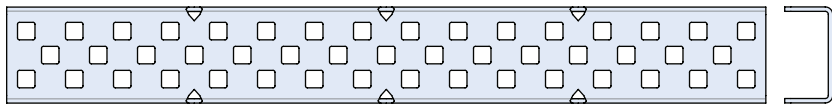
4x Star Drive Screw 8-32 x 0.375"



2x Rubber Shaft Collar



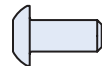
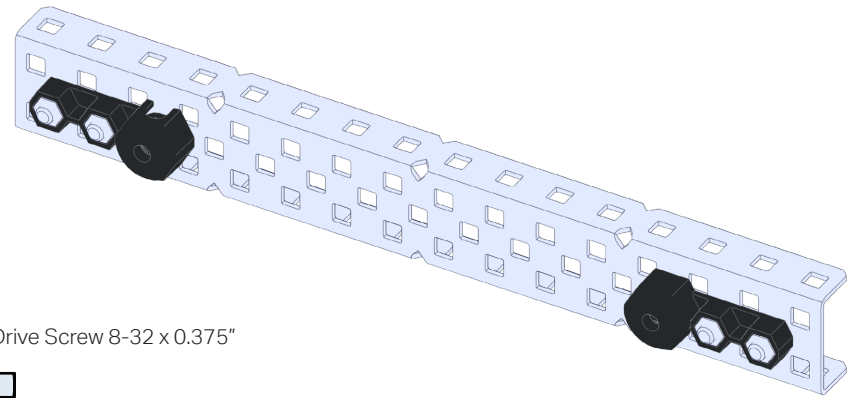
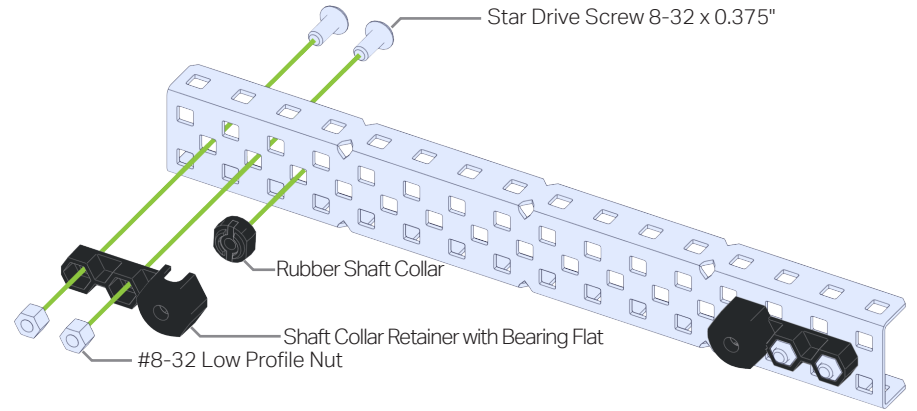
2x Shaft Collar Retainer with Bearing Flat



2x 1x2x16 C-Channel



2X



4x Star Drive Screw 8-32 x 0.375"



4x #8-32 Low Profile Nut

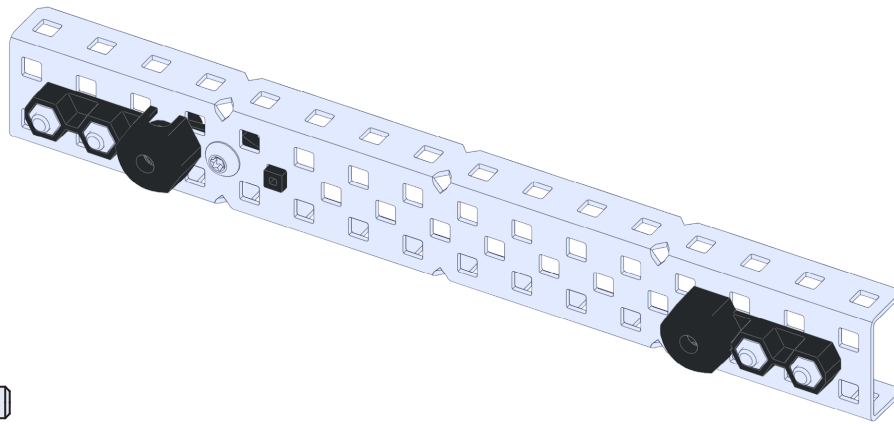
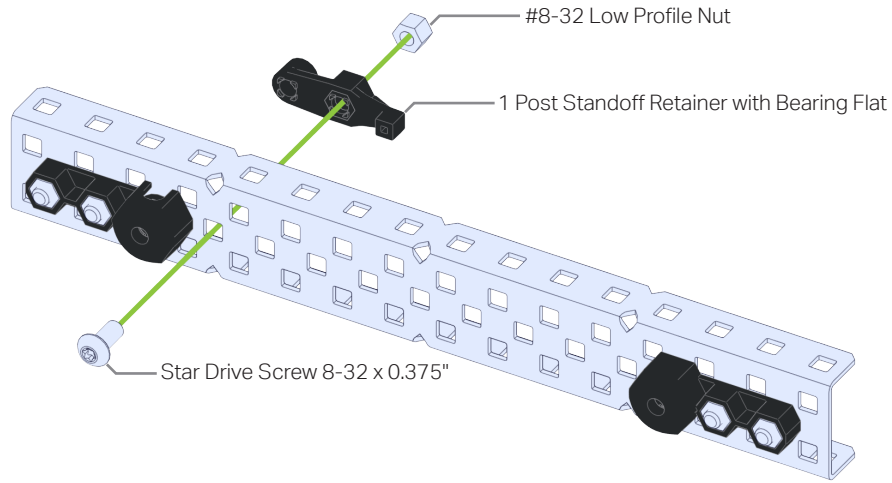



2x Rubber Shaft Collar




2x Shaft Collar Retainer with Bearing Flat

**3 2X**

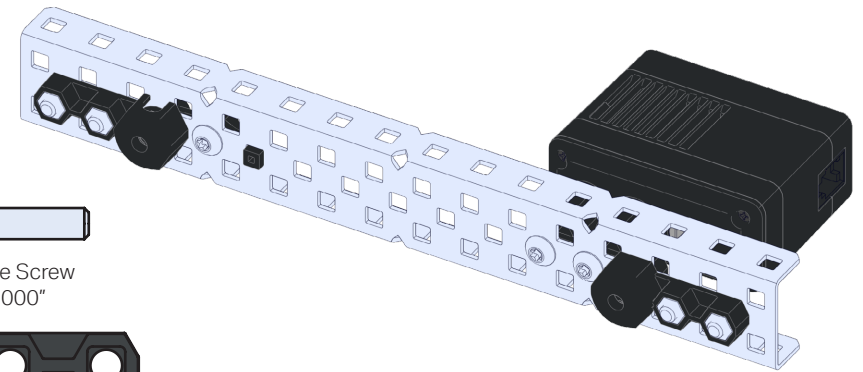
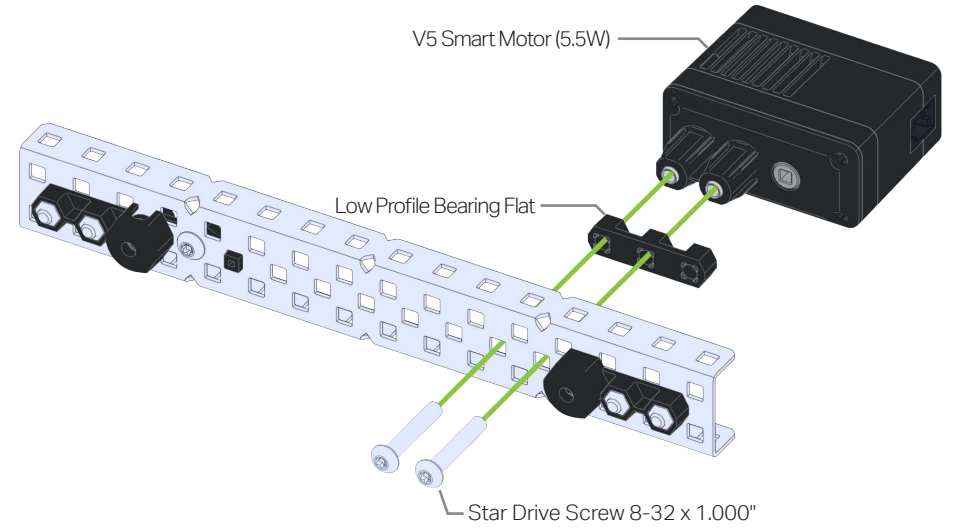



 **2x** Star Drive Screw 8-32 x 0.375"


 **2x** #8-32 Low Profile Nut

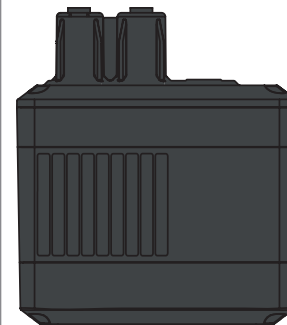
 **2x** 1 Post Standoff Retainer with Bearing Flat

**4 2X**

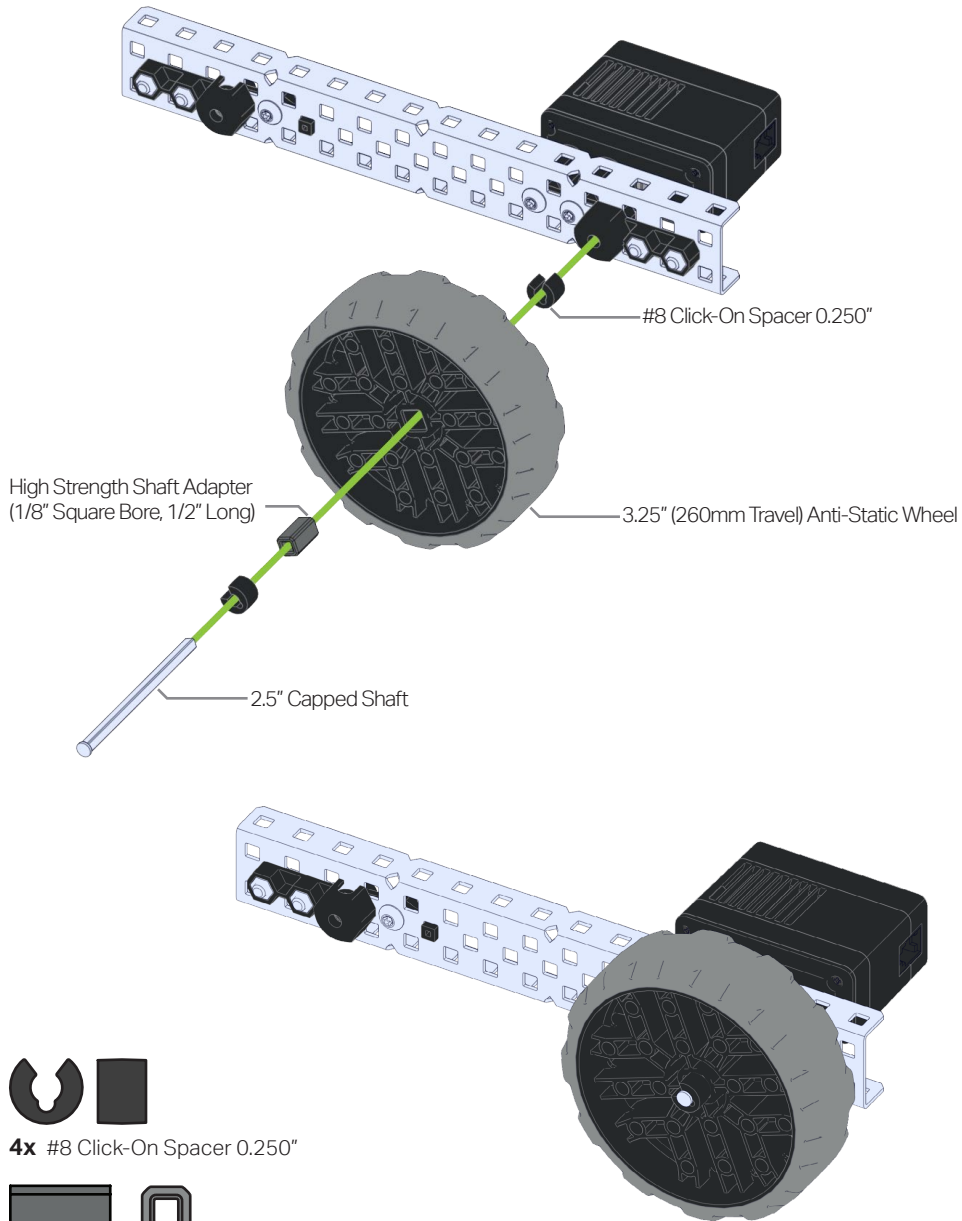


 **4x** Star Drive Screw 8-32 x 1.000"

 **2x** Low Profile Bearing Flat

 **2x** V5 Smart Motor (5.5W)

**5** 2X



High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)

3.25" (260mm Travel) Anti-Static Wheel

2.5" Capped Shaft

#8 Click-On Spacer 0.250"



4x #8 Click-On Spacer 0.250"

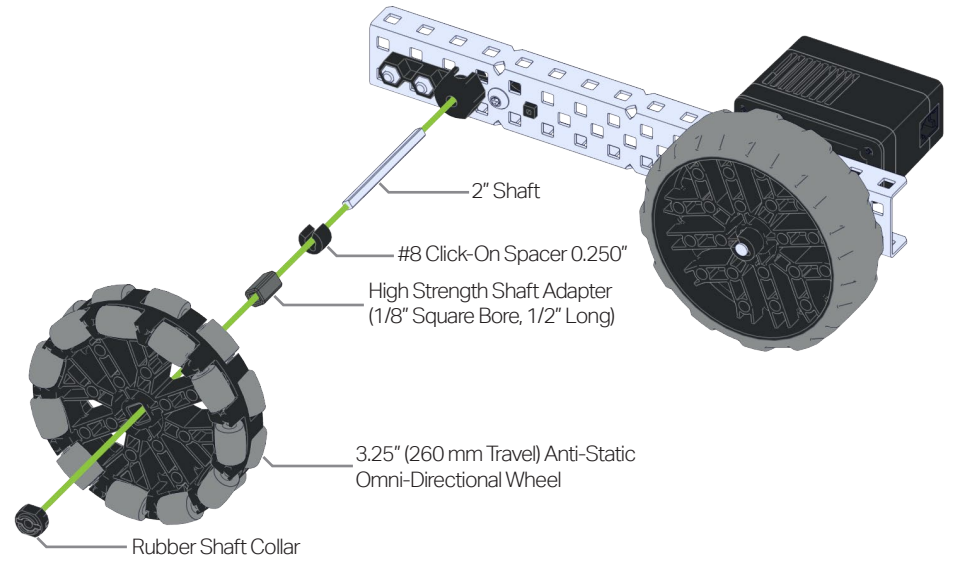


2x High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)



2x 2.5" Capped Shaft

**6** 2X



2" Shaft

#8 Click-On Spacer 0.250"

High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)

3.25" (260 mm Travel) Anti-Static  
Omni-Directional Wheel

Rubber Shaft Collar



2x Rubber Shaft Collar



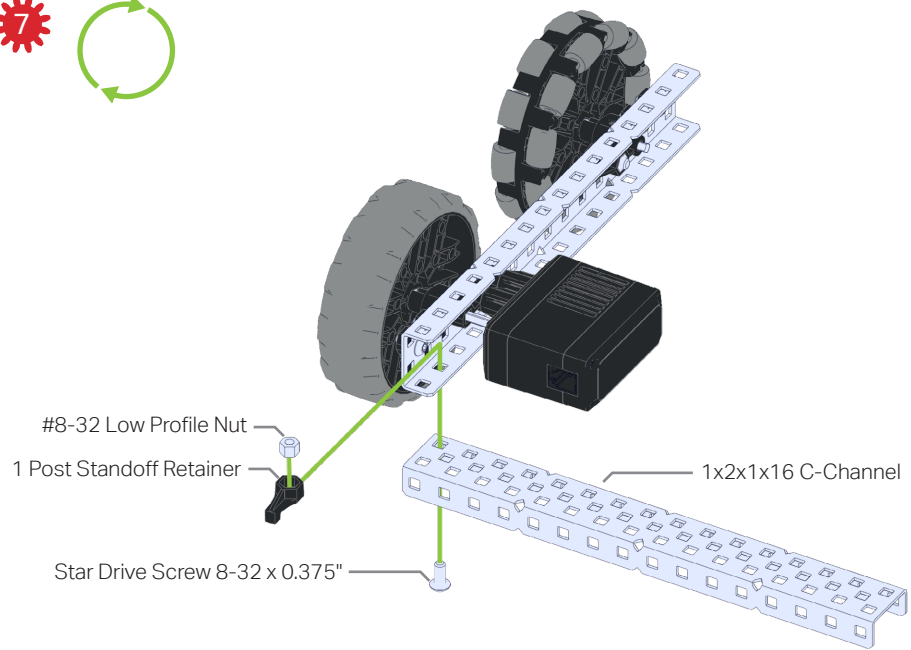
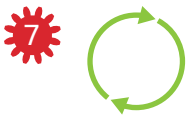
2x #8 Click-On Spacer 0.250"



2x High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)



2x 2" Shaft



#8-32 Low Profile Nut

1 Post Standoff Retainer

Star Drive Screw 8-32 x 0.375"

1x2x1x16 C-Channel



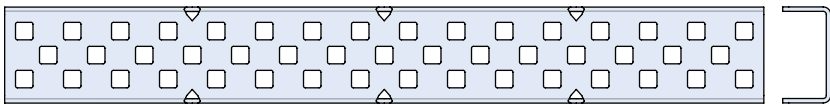
1x #8-32 Low Profile Nut



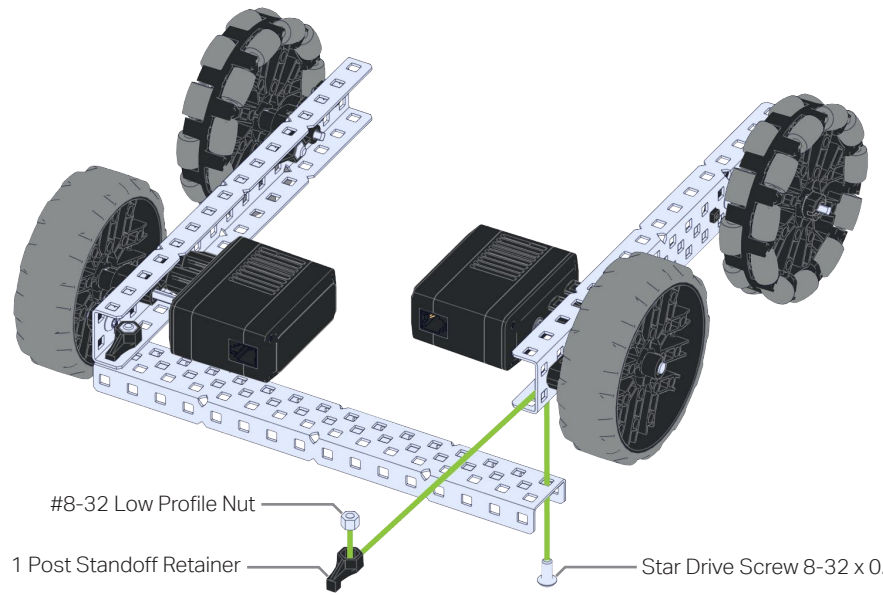
1x Star Drive Screw 8-32 x 0.375"



1x 1 Post Standoff Retainer



1x 1x2x1x16 C-Channel



#8-32 Low Profile Nut

1 Post Standoff Retainer

Star Drive Screw 8-32 x 0.375"



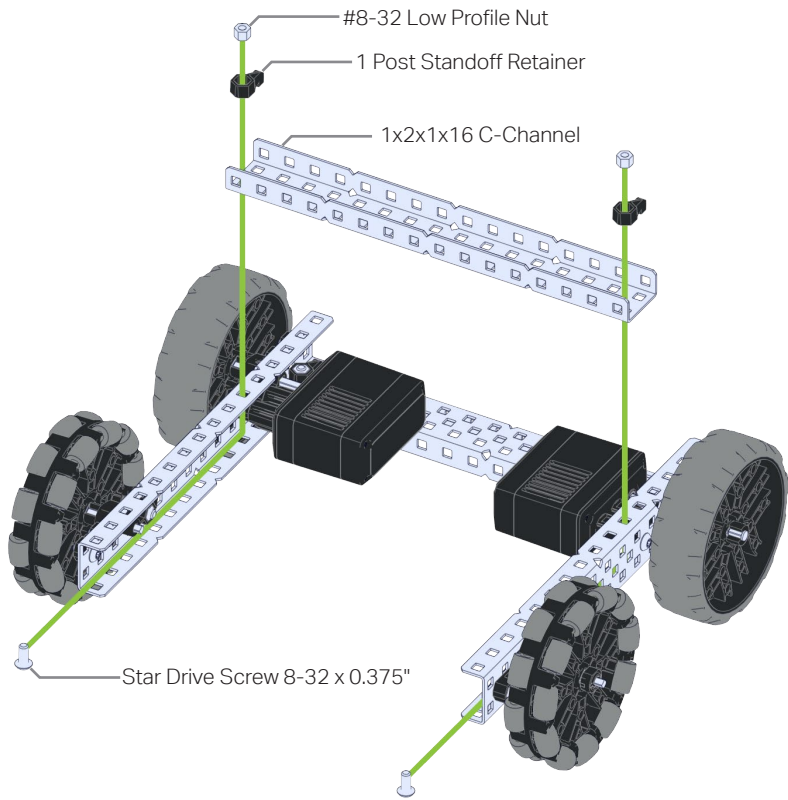
1x #8-32 Low Profile Nut



1x Star Drive Screw 8-32 x 0.375"



1x 1 Post Standoff Retainer



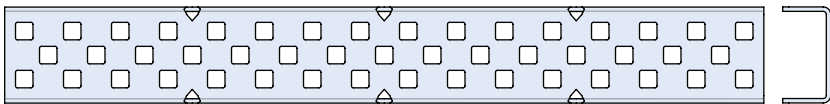
2x #8-32 Low Profile Nut



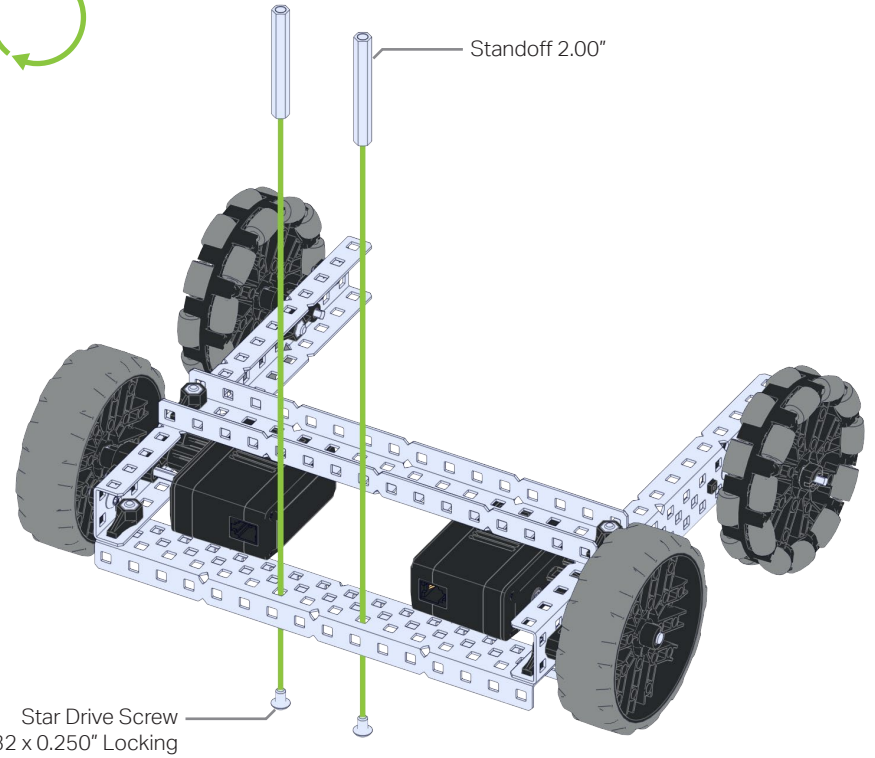
2x Star Drive Screw 8-32 x 0.375"



2x 1 Post Standoff Retainer



1x 1x2x16 C-Channel



Star Drive Screw  
8-32 x 0.250" Locking

Standoff 2.00"



2x Star Drive Screw  
8-32 x 0.250" Locking



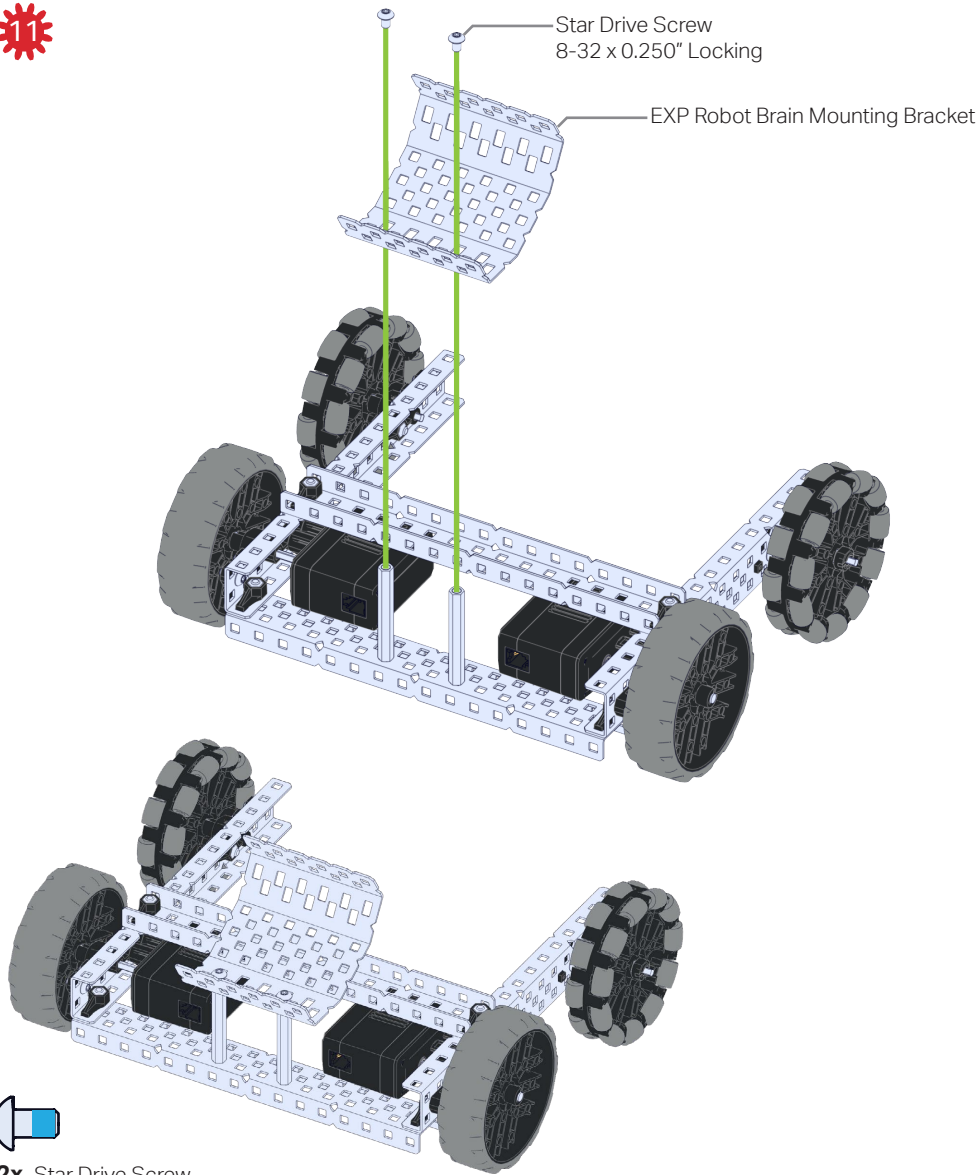
2x Standoff 2.00"



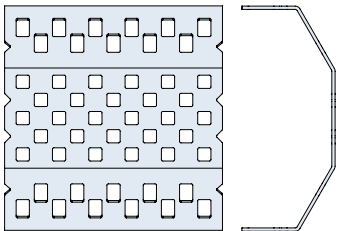


Star Drive Screw  
8-32 x 0.250" Locking

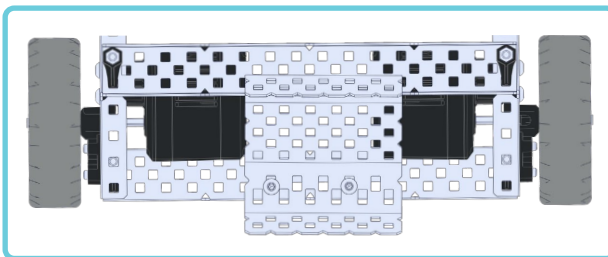
EXP Robot Brain Mounting Bracket



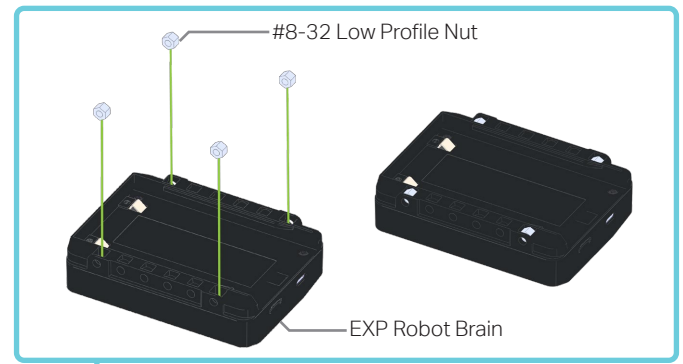
2x Star Drive Screw  
8-32 x 0.250" Locking



1x EXP Robot Brain Mounting Bracket

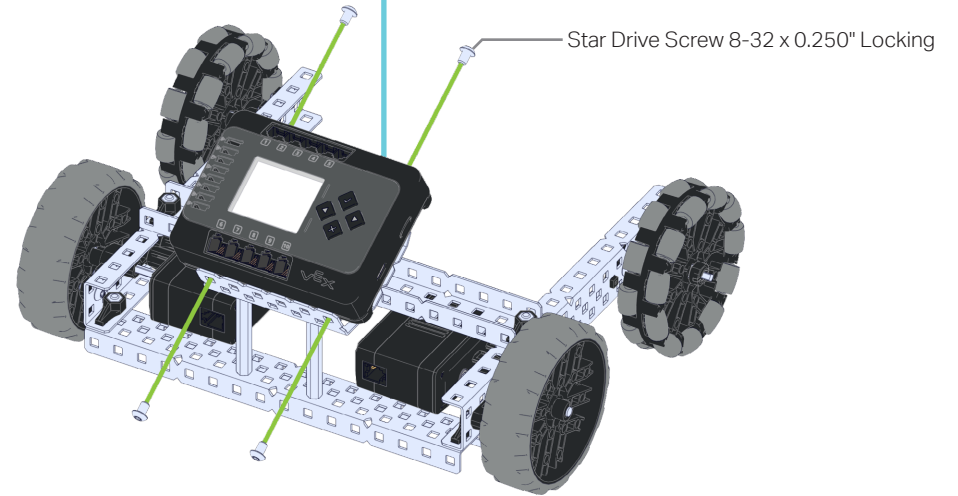


#8-32 Low Profile Nut



EXP Robot Brain

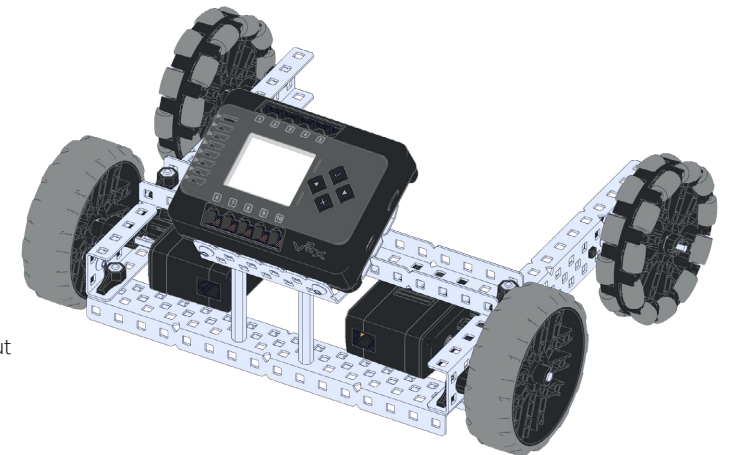
Star Drive Screw 8-32 x 0.250" Locking

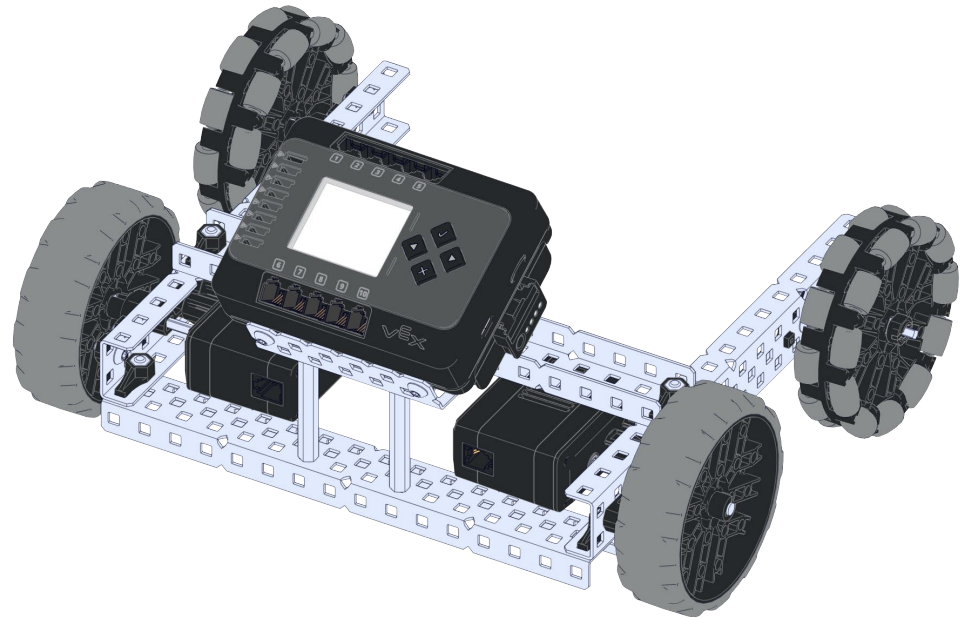
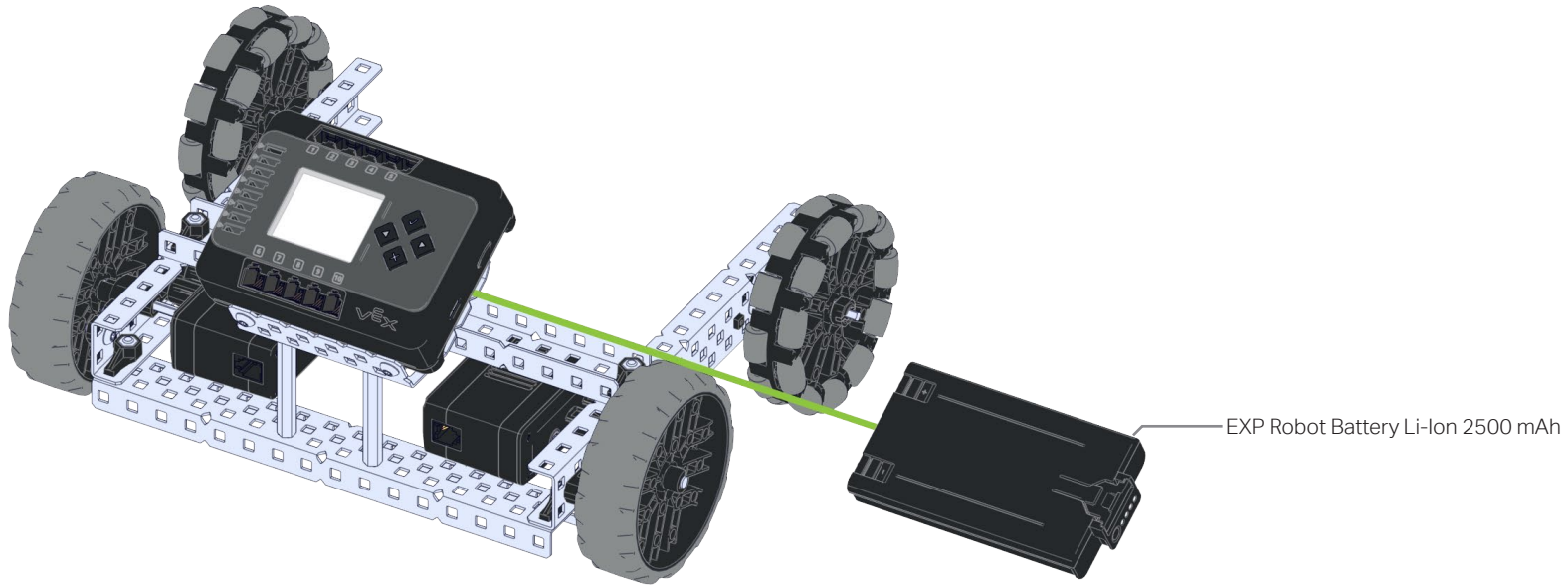


4x #8-32 Low Profile Nut

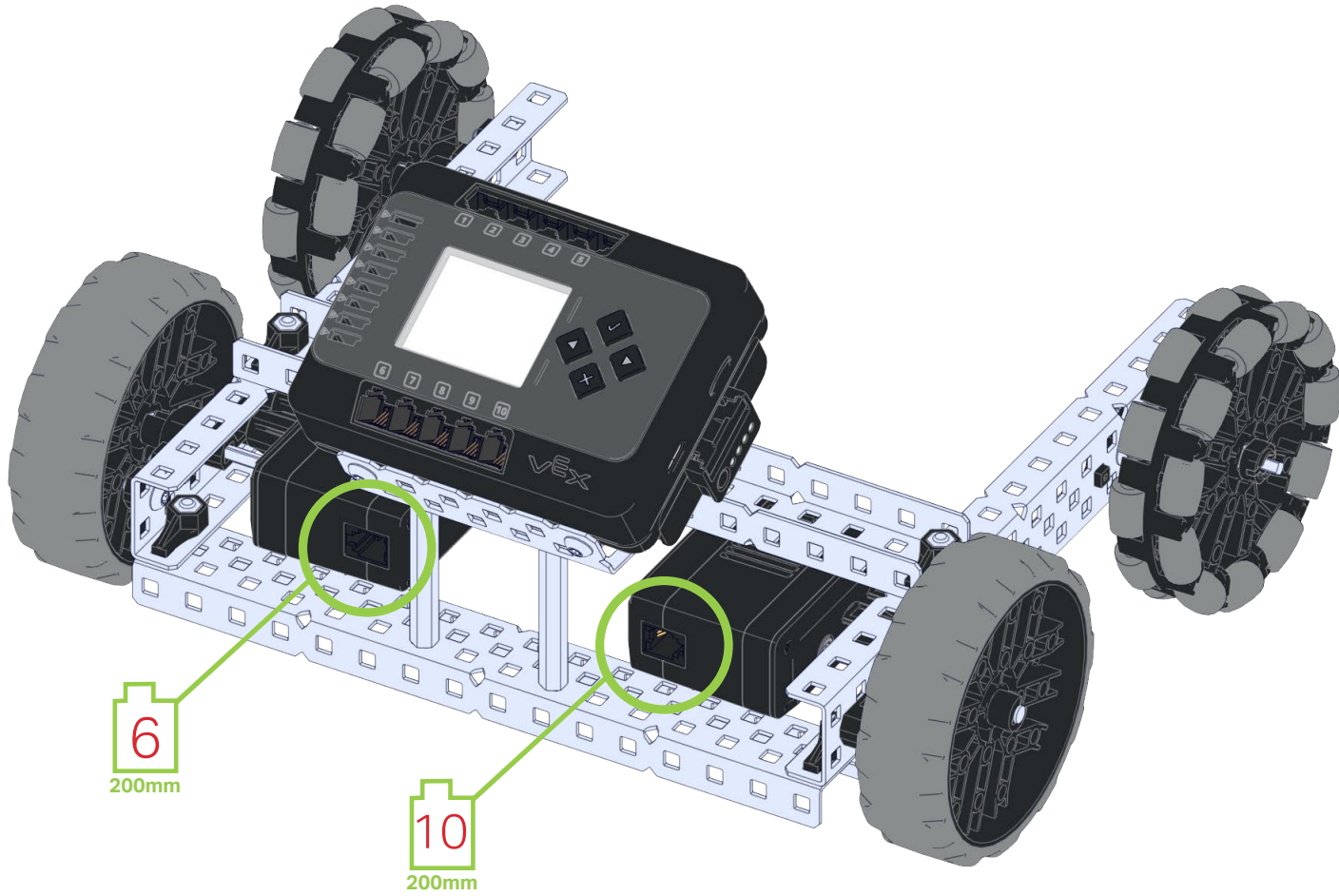


4x Star Drive Screw  
8-32 x 0.250" Locking



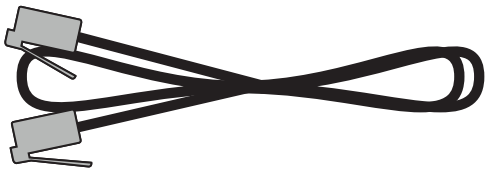


1x EXP Robot Battery Li-Ion, 2500 mAh

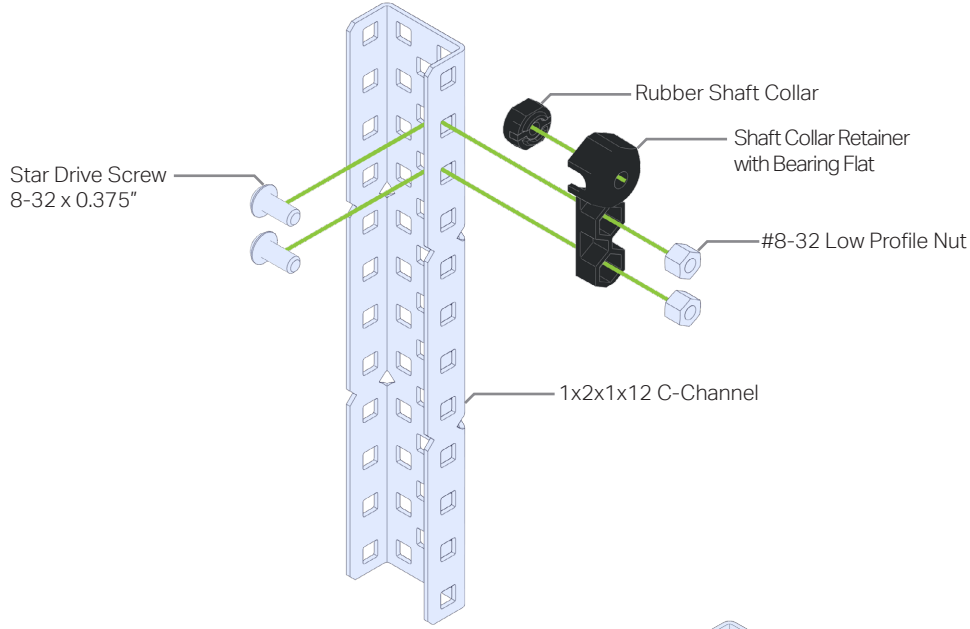


6  
200mm

10  
200mm



2x 200mm Smart Cable



2x Star Drive Screw 8-32 x 0.375"



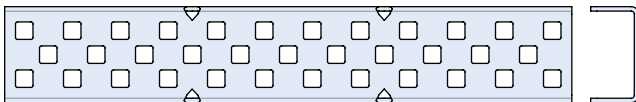
2x #8-32 Low Profile Nut



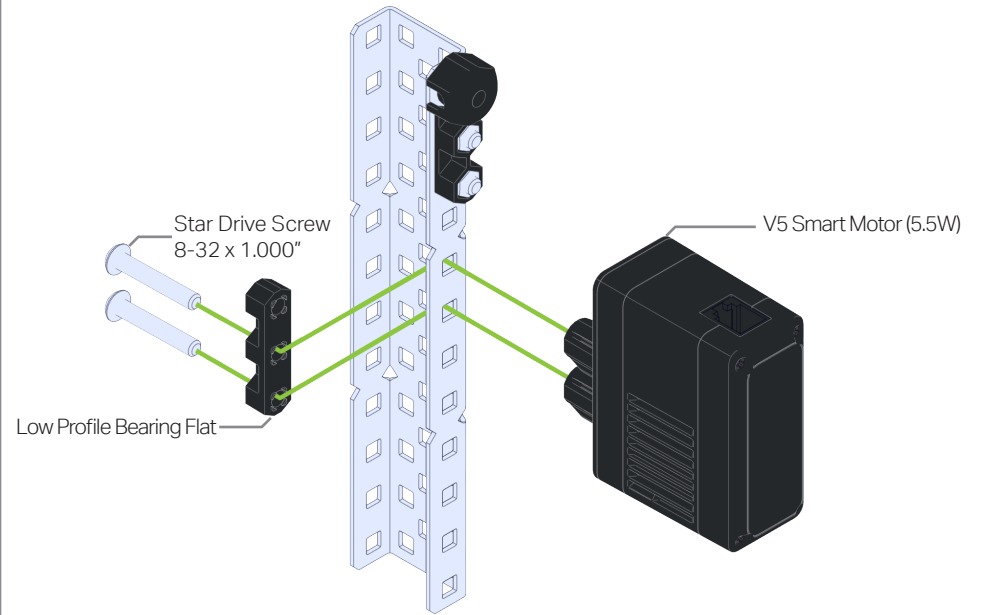
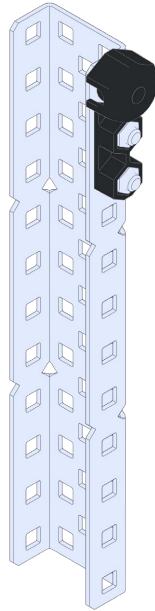
1x Rubber Shaft Collar



1x Shaft Collar Retainer with Bearing Flat



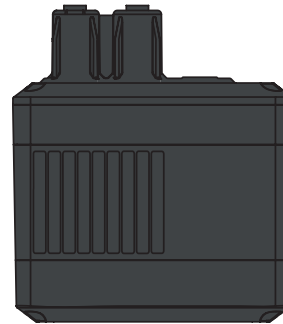
1x 1x2x12 C-Channel



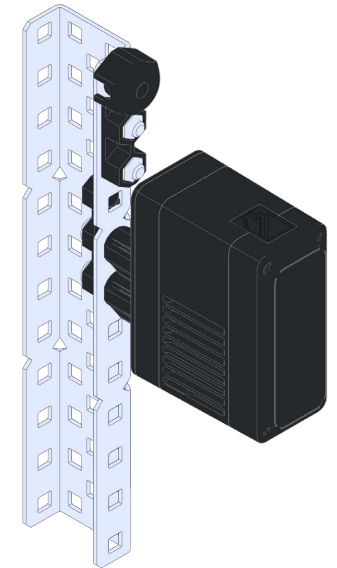
2x Star Drive Screw 8-32 x 1.000"

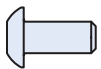
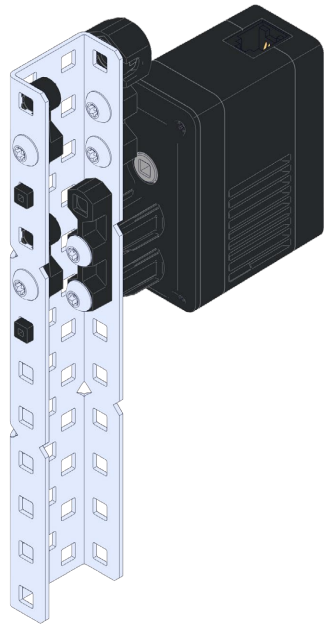
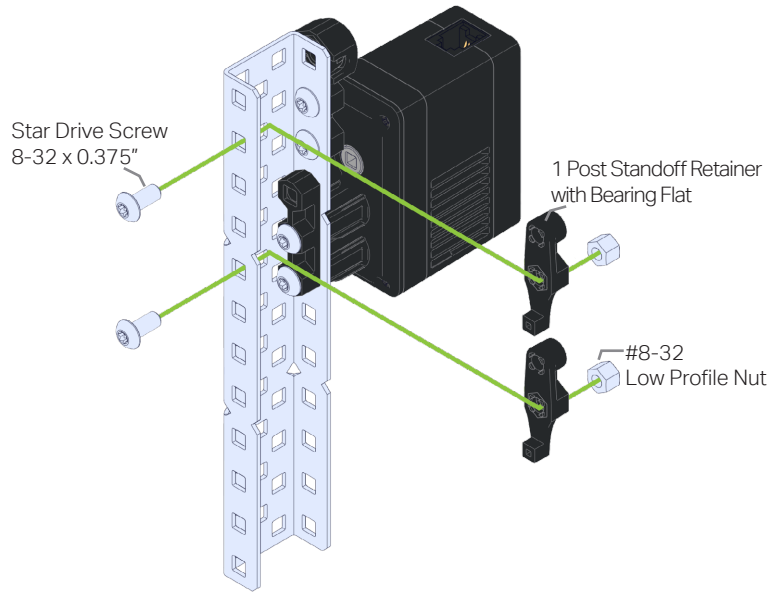


1x Low Profile Bearing Flat



1x V5 Smart Motor (5.5W)





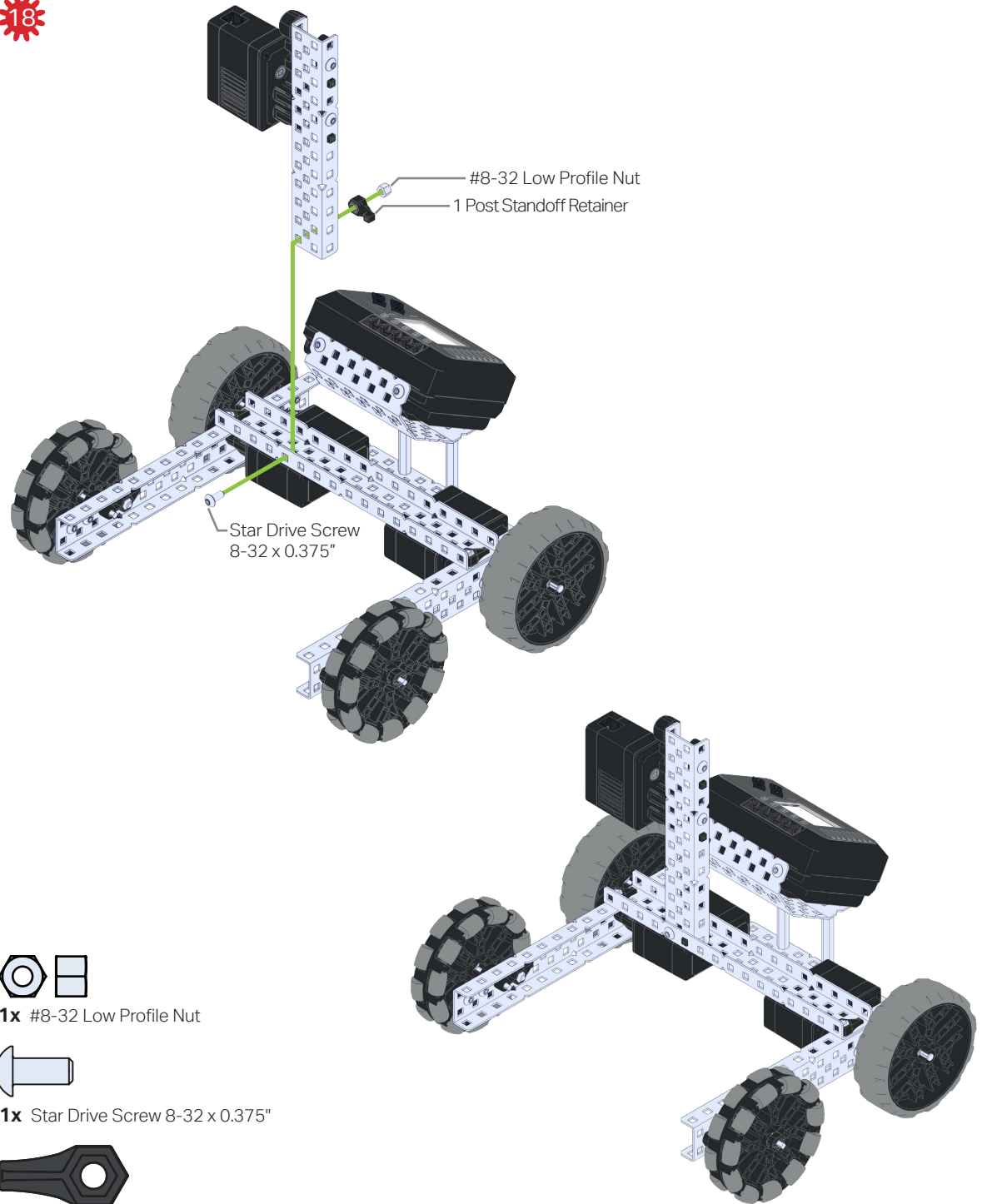
2x Star Drive Screw 8-32 x 0.375"



2x #8-32 Low Profile Nut



2x 1 Post Standoff Retainer with Bearing Flat



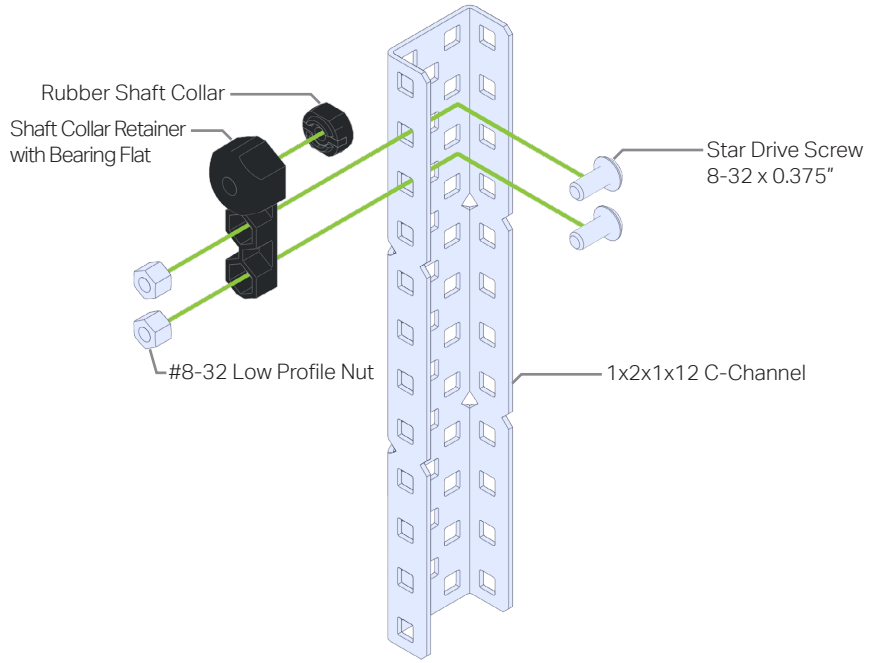
1x #8-32 Low Profile Nut



1x Star Drive Screw 8-32 x 0.375"



1x 1 Post Standoff Retainer



2x Star Drive Screw 8-32 x 0.375"



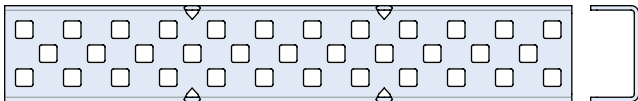
2x #8-32 Low Profile Nut



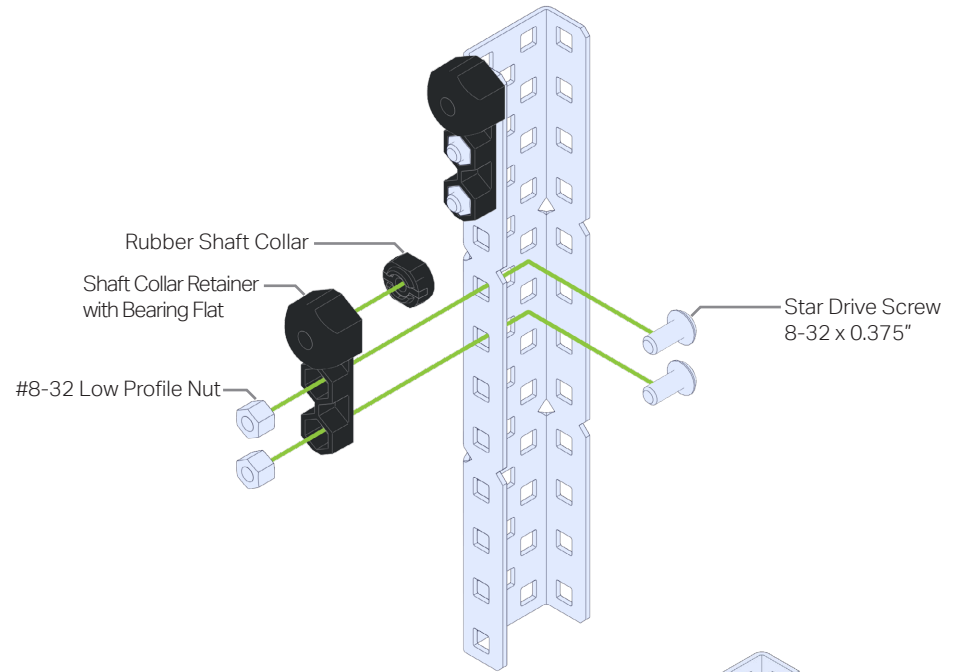
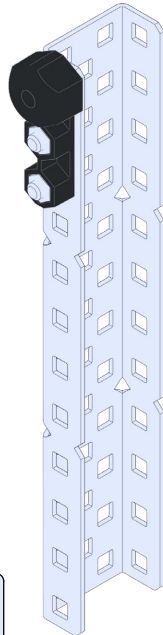
1x Rubber Shaft Collar



1x Shaft Collar Retainer with Bearing Flat



1x 1x2x12 C-Channel



2x Star Drive Screw 8-32 x 0.375"



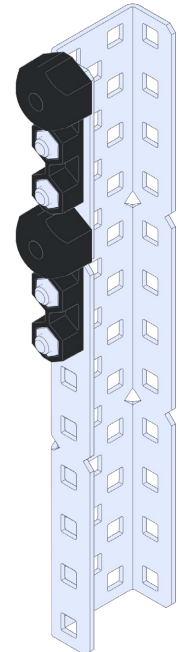
2x #8-32 Low Profile Nut



1x Rubber Shaft Collar



1x Shaft Collar Retainer with Bearing Flat





1 Post Standoff Retainer with Bearing Flat

#8-32 Low Profile Nut

Star Drive Screw 8-32 x 0.375"



2x Star Drive Screw 8-32 x 0.375"



2x #8-32 Low Profile Nut



2x 1 Post Standoff Retainer with Bearing Flat



#8-32 Low Profile Nut  
1 Post Standoff Retainer

Star Drive Screw 8-32 x 0.375"



1x #8-32 Low Profile Nut

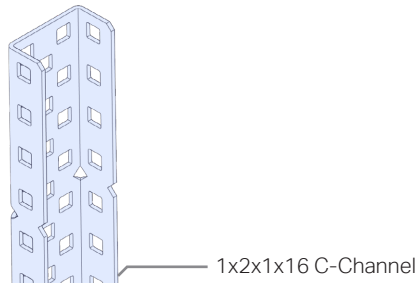


1x Star Drive Screw 8-32 x 0.375"



1x 1 Post Standoff Retainer

23



1x2x16 C-Channel

Star Drive Screw  
8-32 x 0.375"

1 Post Standoff Retainer with  
Bearing Flat

#8-32 Low Profile Nut



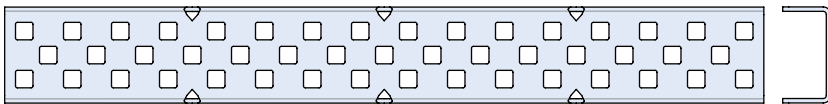
1x Star Drive Screw 8-32 x 0.375"



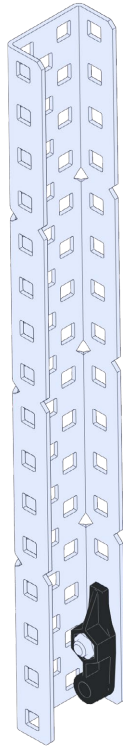
1x #8-32 Low Profile Nut



1x 1 Post Standoff Retainer with Bearing Flat

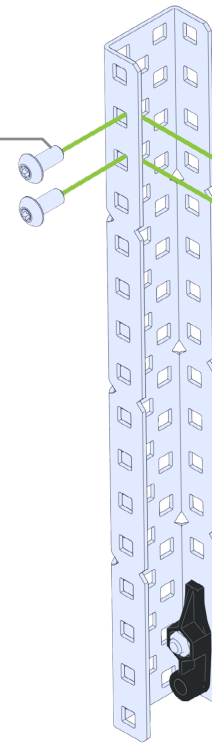


1x 1x2x16 C-Channel



24

Star Drive Screw  
8-32 x 0.375"



#8-32 Low Profile Nut

Low Profile Bearing Flat



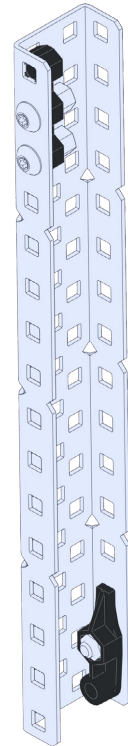
2x Star Drive Screw 8-32 x 0.375"



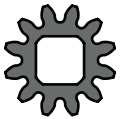
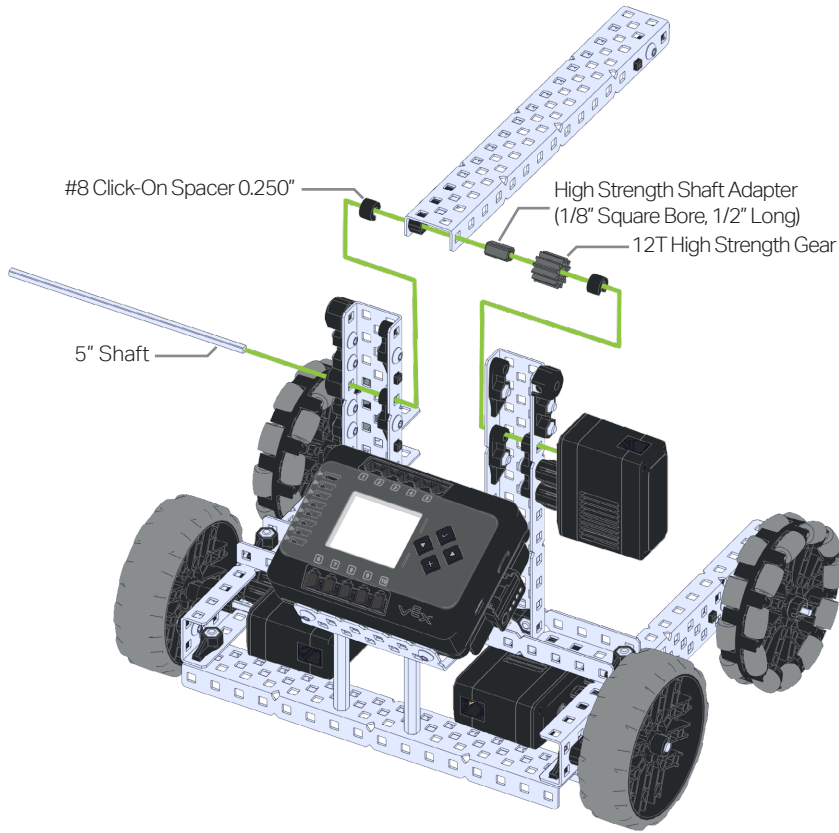
2x #8-32 Low Profile Nut



1x Low Profile Bearing Flat







1x 12T High Strength Gear



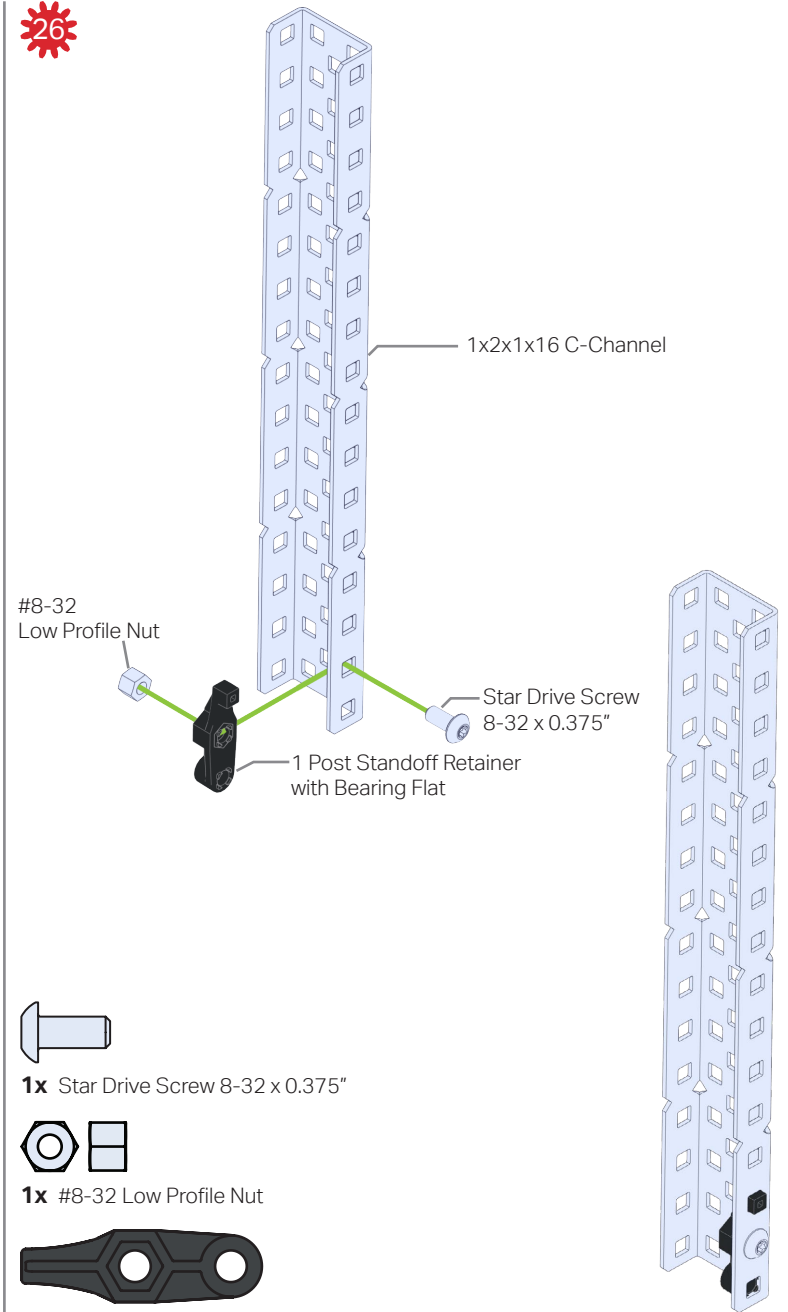
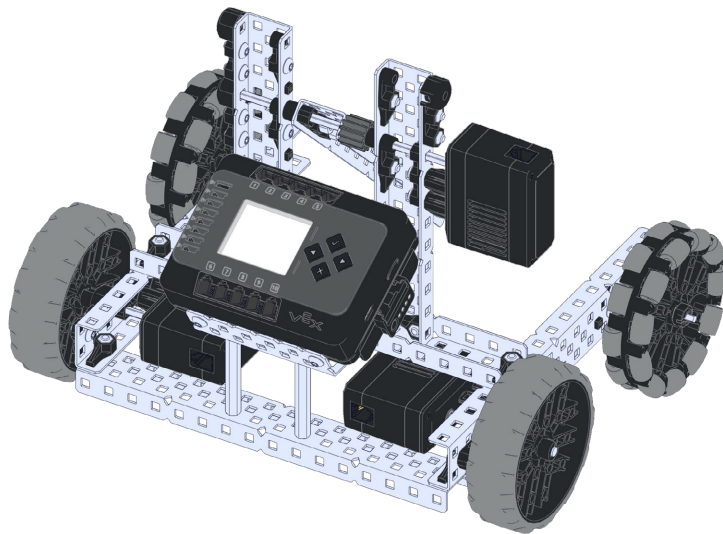
2x #8 Click-On Spacer 0.250"



1x High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)



1x 5" Shaft



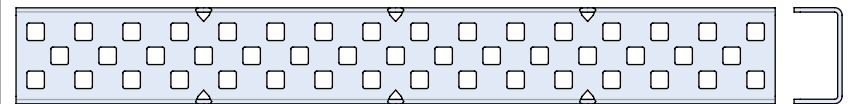
1x Star Drive Screw 8-32 x 0.375"



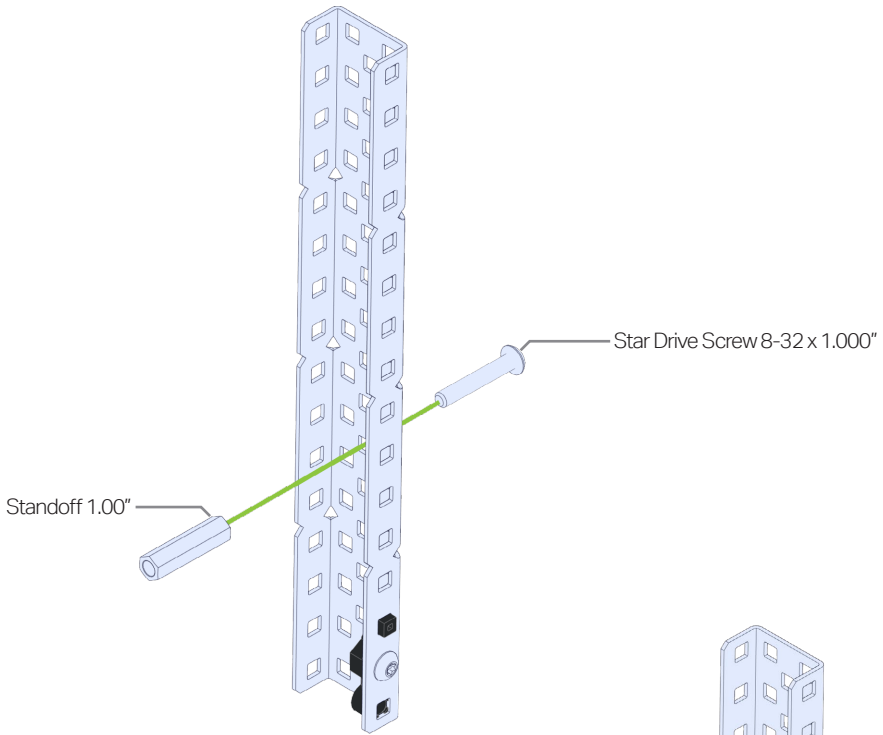
1x #8-32 Low Profile Nut



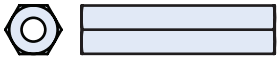
1x 1 Post Standoff Retainer with Bearing Flat



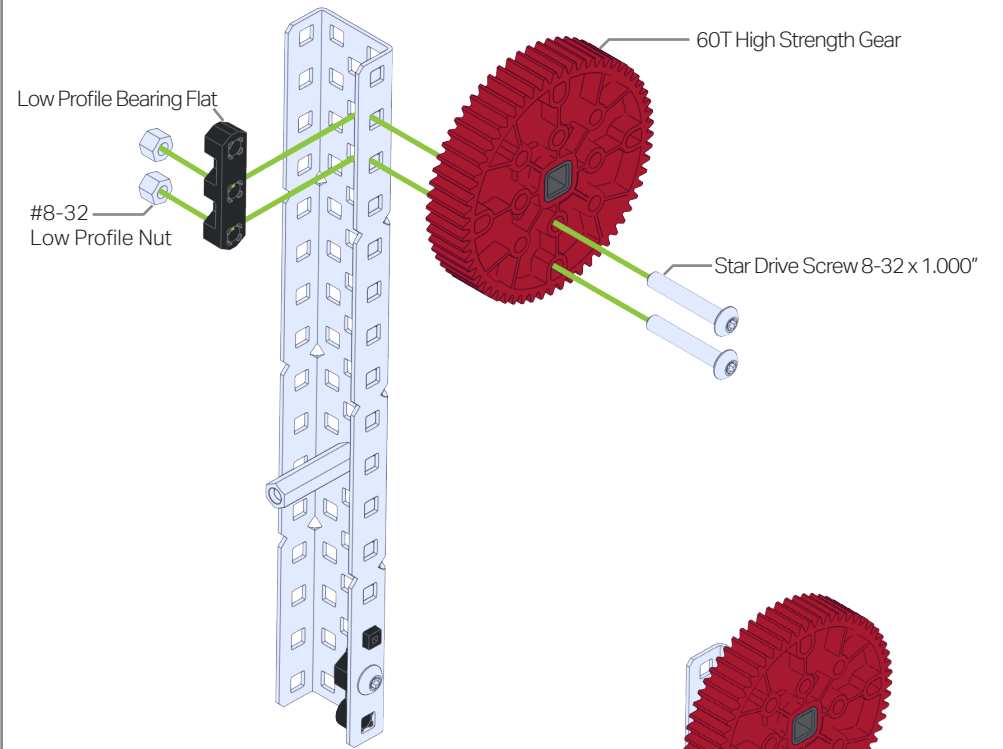
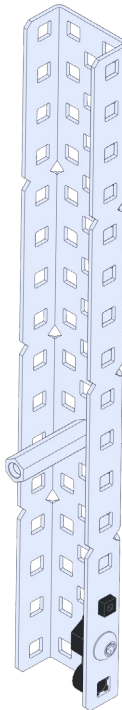
1x 1x2x1x16 C-Channel



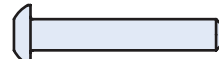
1x Star Drive Screw 8-32 x 1.000"



1x Standoff 1.00"



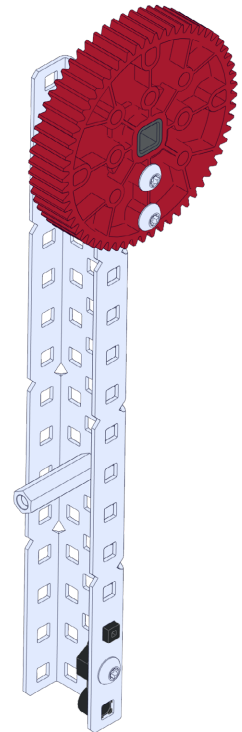
2x #8-32 Low Profile Nut

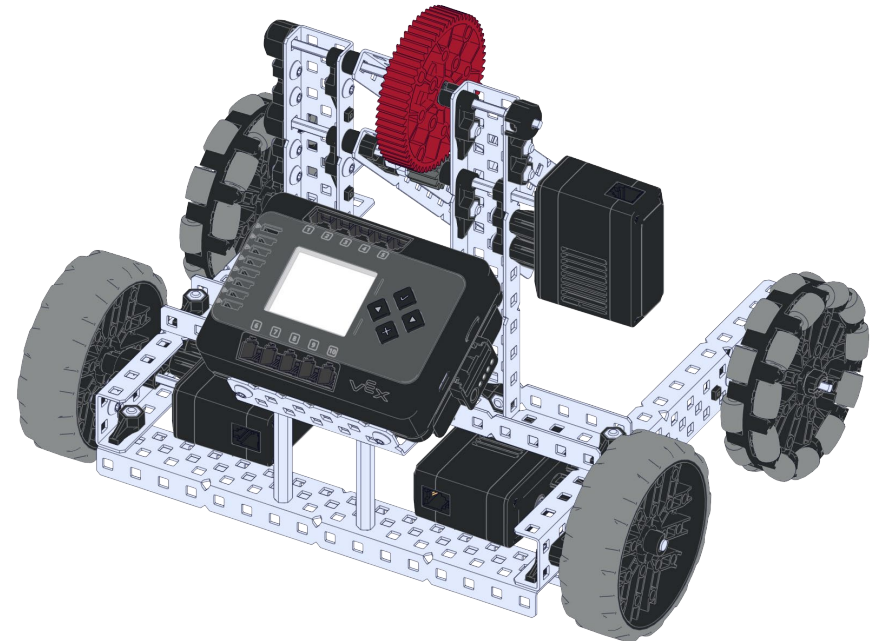
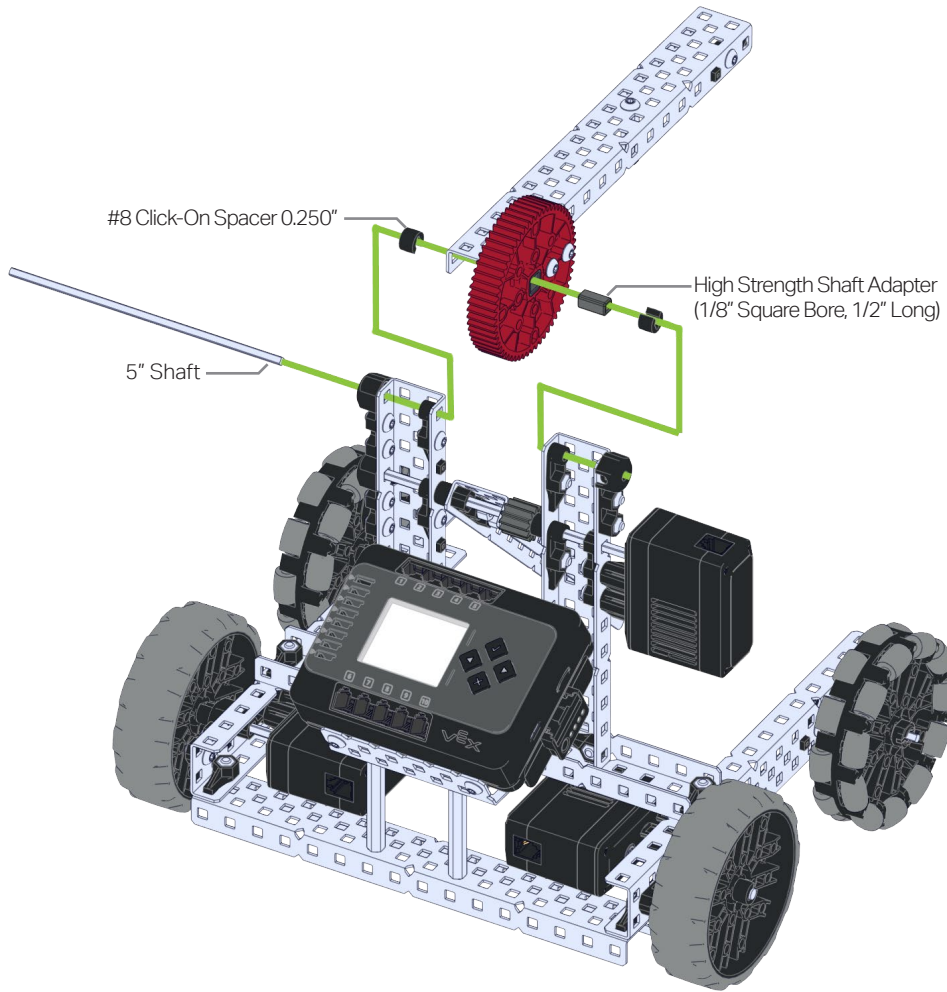


2x Star Drive Screw 8-32 x 1.000"



1x Low Profile Bearing Flat





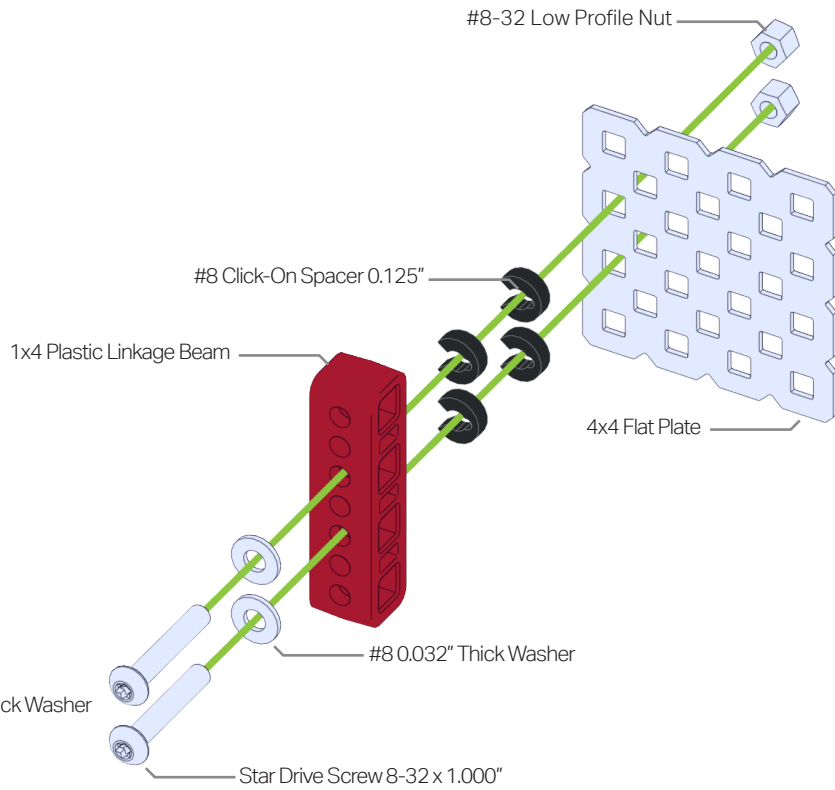
2x #8 Click-On Spacer 0.250"



1x High Strength Shaft Adapter  
(1/8" Square Bore, 1/2" Long)



1x 5" Shaft



2x #8 0.032" Thick Washer



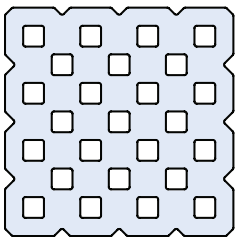
4x #8 Click-On Spacer 0.125"



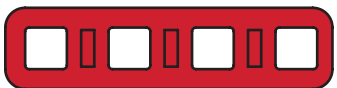
2x #8-32 Low Profile Nut



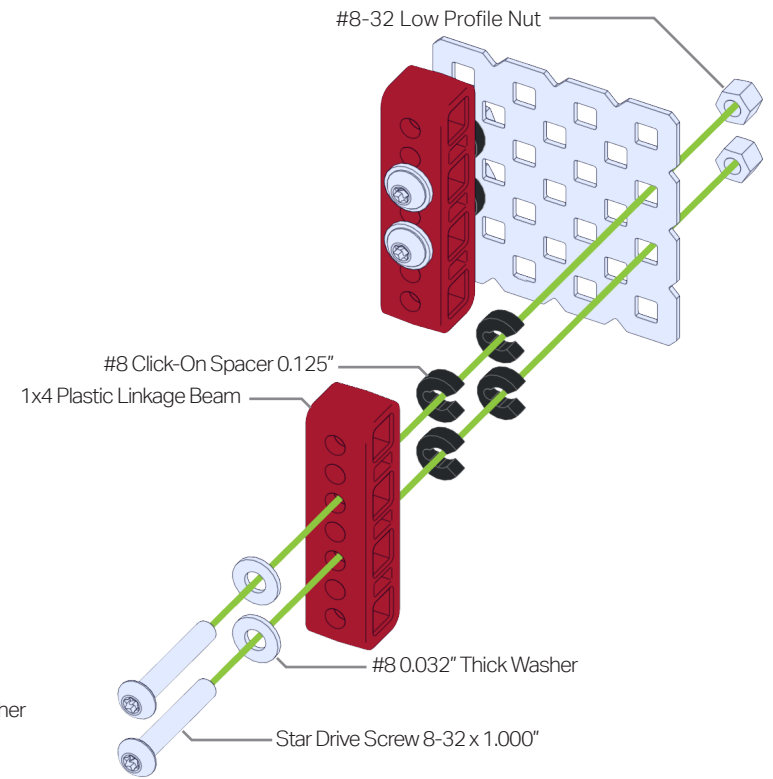
2x Star Drive Screw 8-32 x 1.000"



1x 4x4 Flat Plate



1x 1x4 Plastic Linkage Beam



2x #8 0.032" Thick Washer



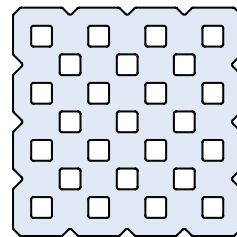
4x #8 Click-On Spacer 0.125"



2x #8-32 Low Profile Nut



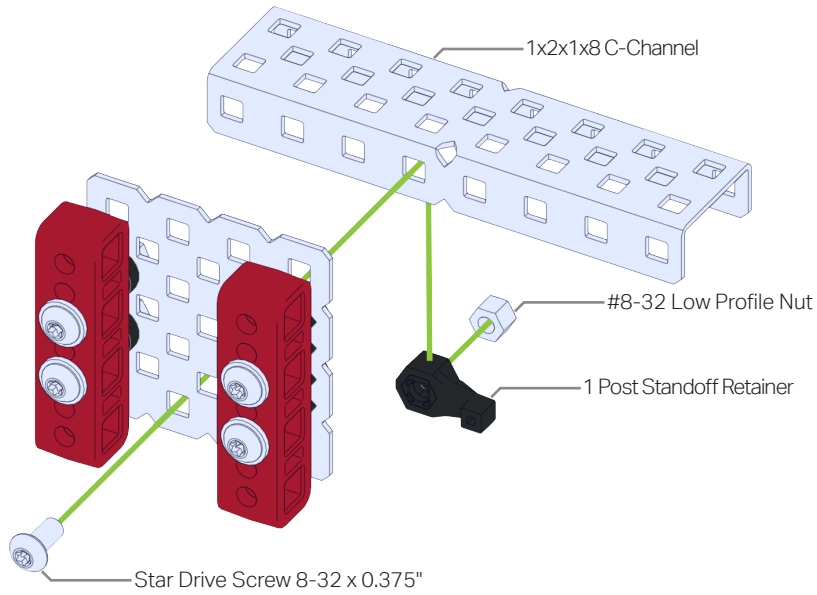
2x Star Drive Screw 8-32 x 1.000"



1x 4x4 Flat Plate



1x 1x4 Plastic Linkage Beam



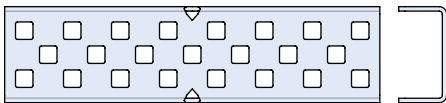
1x #8-32 Low Profile Nut



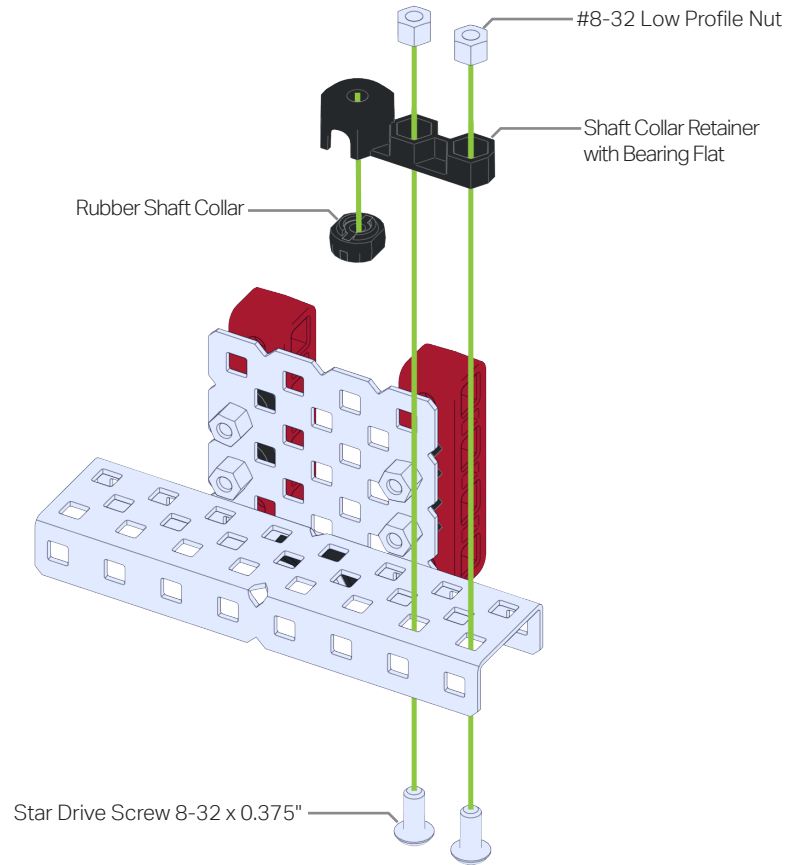
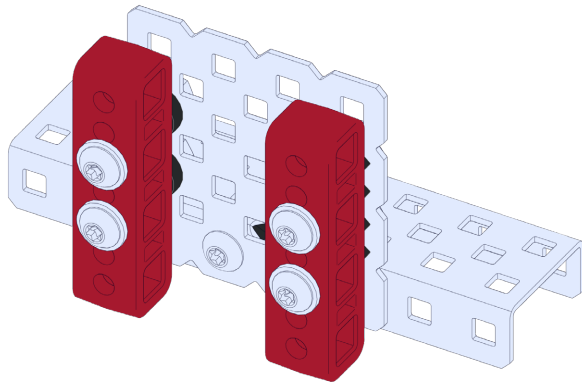
1x Star Drive Screw 8-32 x 0.375"



1x 1 Post Standoff Retainer



1x 1x2x1x8 C-Channel



2x Star Drive Screw 8-32 x 0.375"



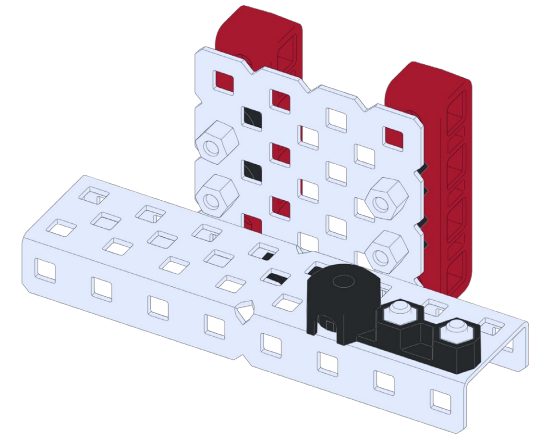
2x #8-32 Low Profile Nut



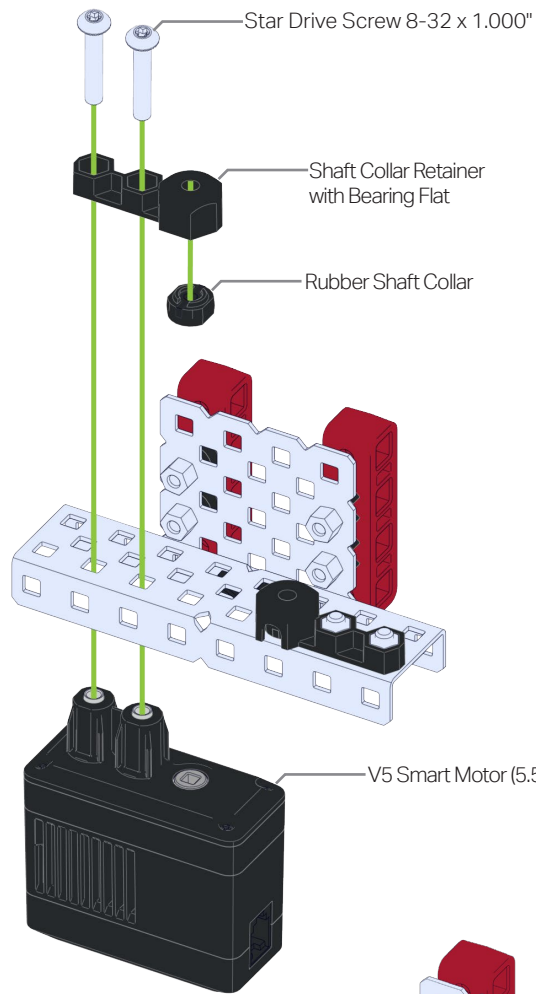
1x Rubber Shaft Collar



1x Shaft Collar Retainer with Bearing Flat



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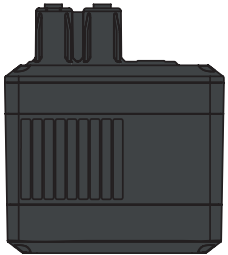
2x Star Drive Screw 8-32 x 1.000"



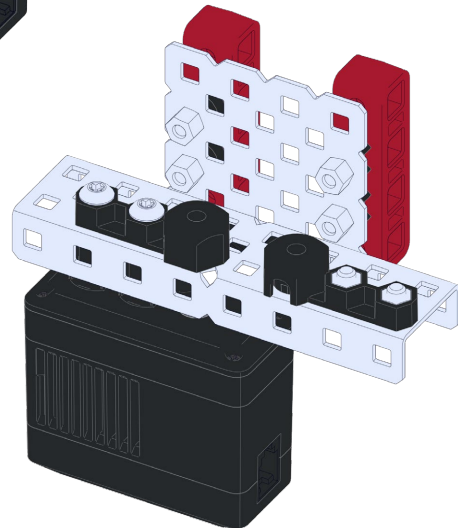
1x Rubber Shaft Collar



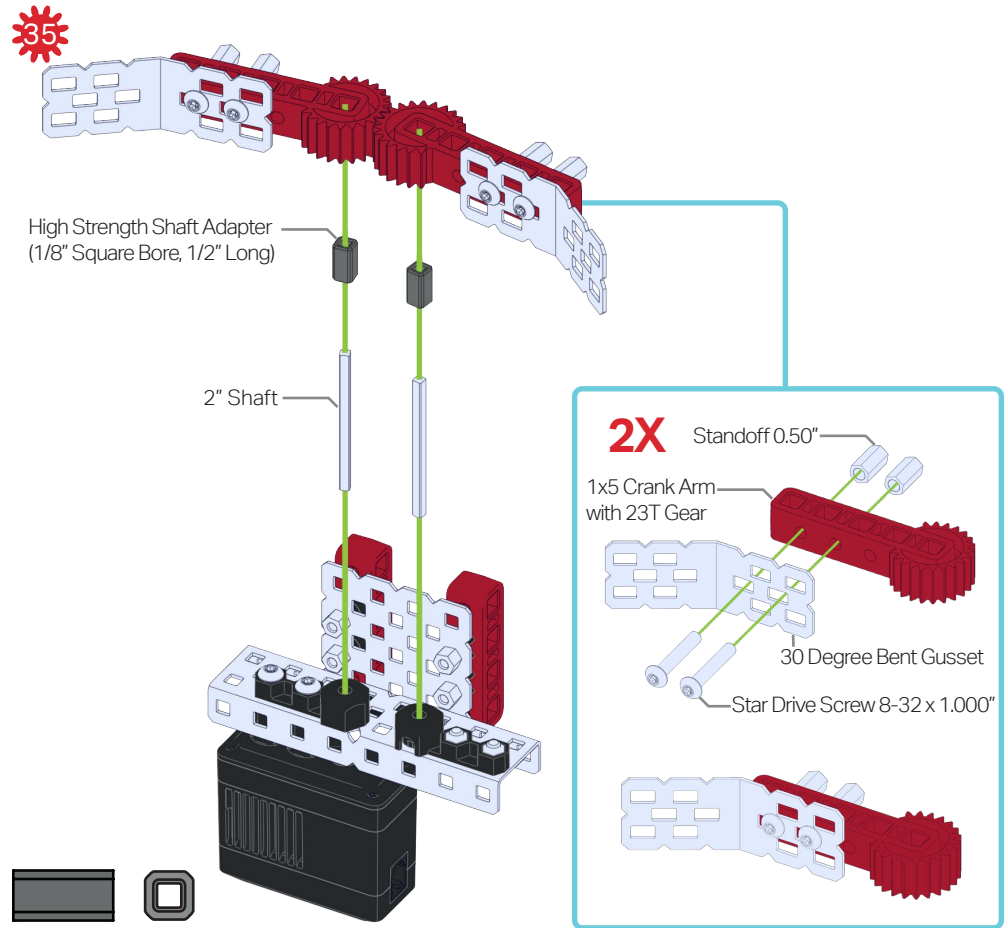
1x Shaft Collar Retainer with Bearing Flat



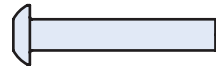
1x V5 Smart Motor (5.5W)



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2x High Strength Shaft Adapter (1/8" Square Bore, 1/2" Long)



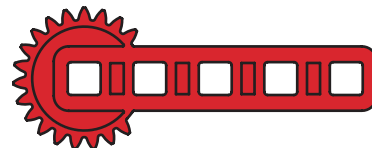
4x Star Drive Screw 8-32 x 1.000"



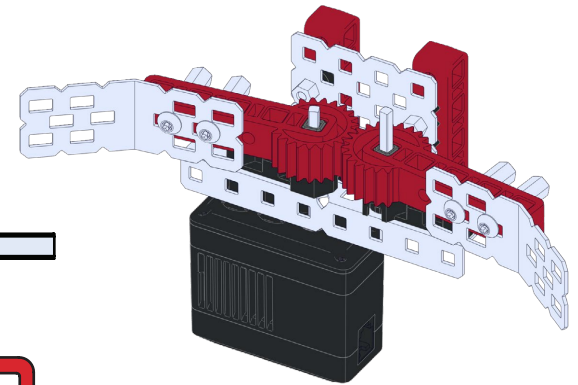
4x Standoff 0.50"



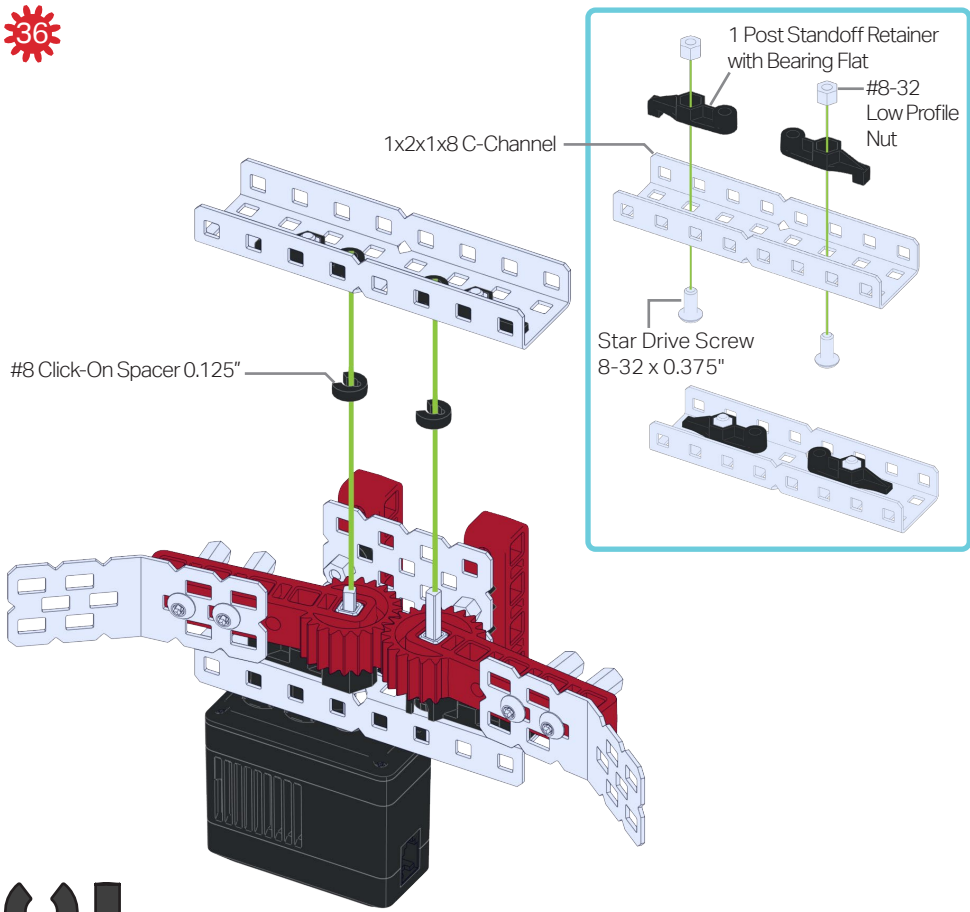
2x 2" Shaft



2x 1x5 Crank Arm with 23T Gear



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2x #8 Click-On Spacer 0.125"



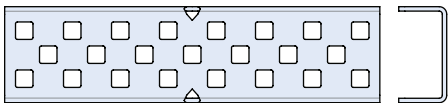
2x Star Drive Screw 8-32 x 0.375"



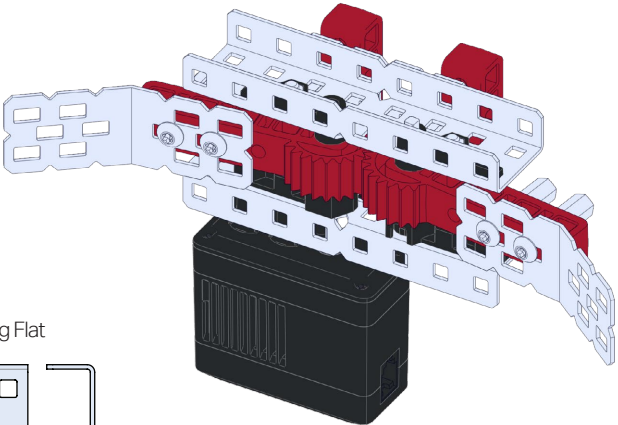
2x #8-32 Low Profile Nut



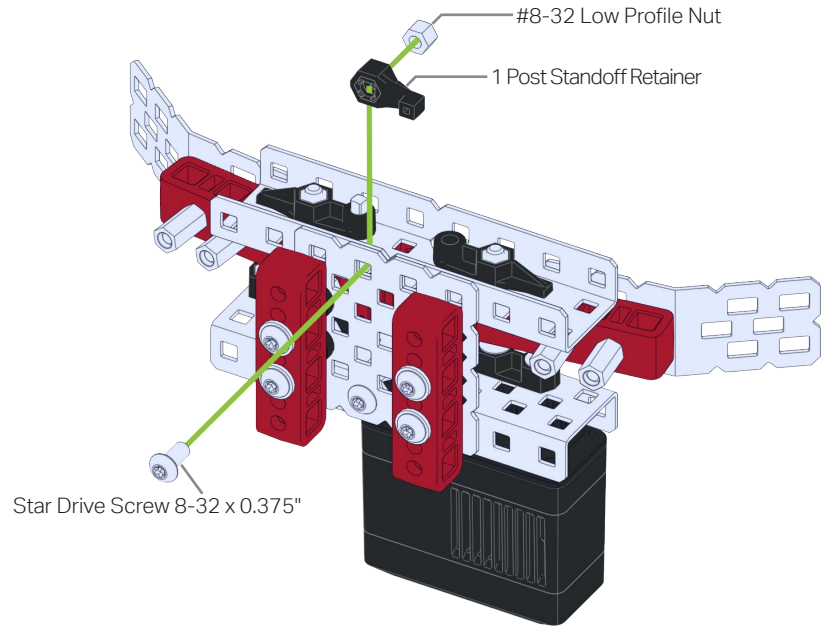
2x 1 Post Standoff Retainer with Bearing Flat



1x 1x2x1x8 C-Channel



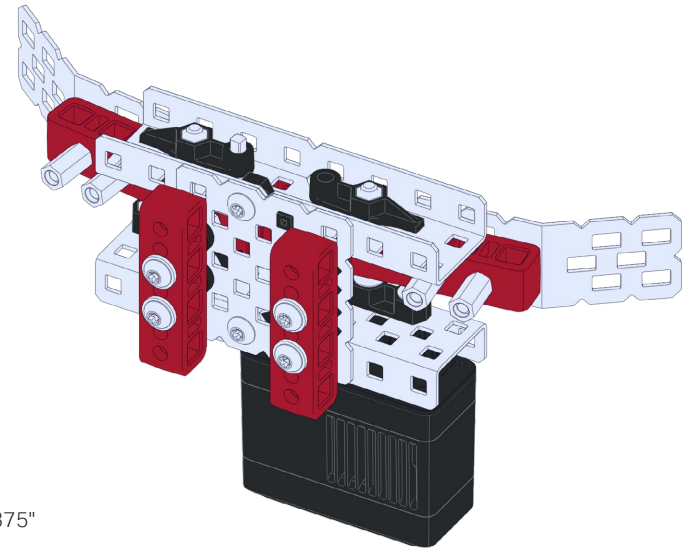
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Star Drive Screw 8-32 x 0.375"

#8-32 Low Profile Nut

1 Post Standoff Retainer



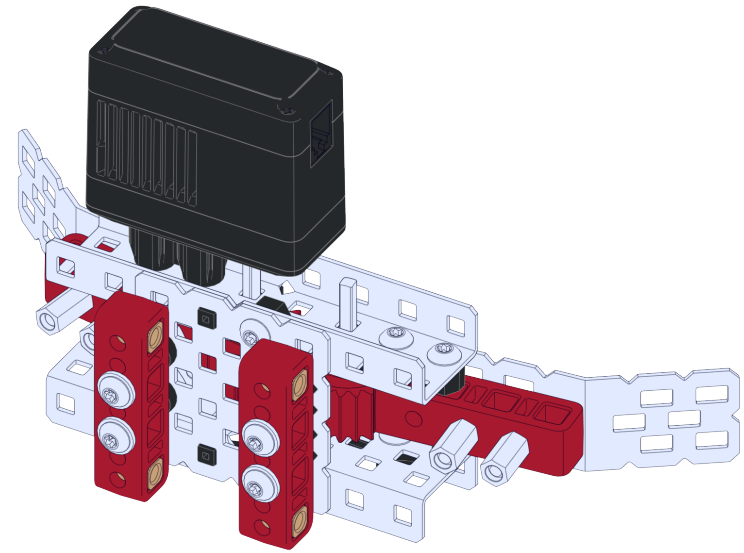
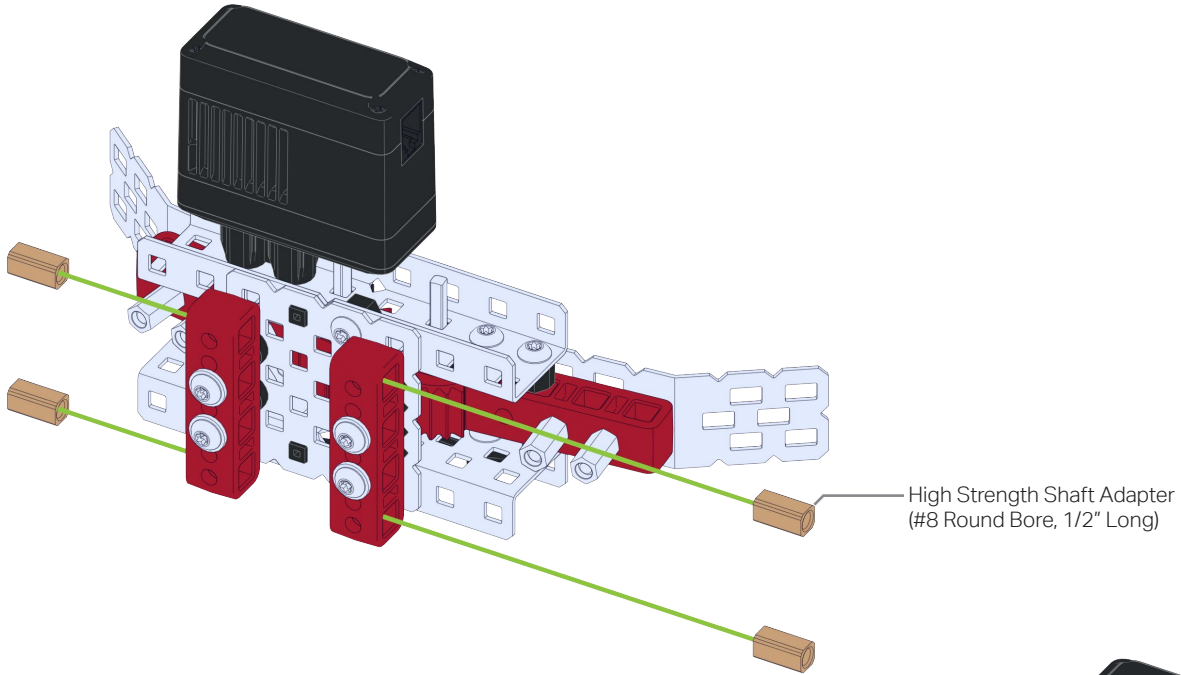
1x #8-32 Low Profile Nut



1x Star Drive Screw 8-32 x 0.375"

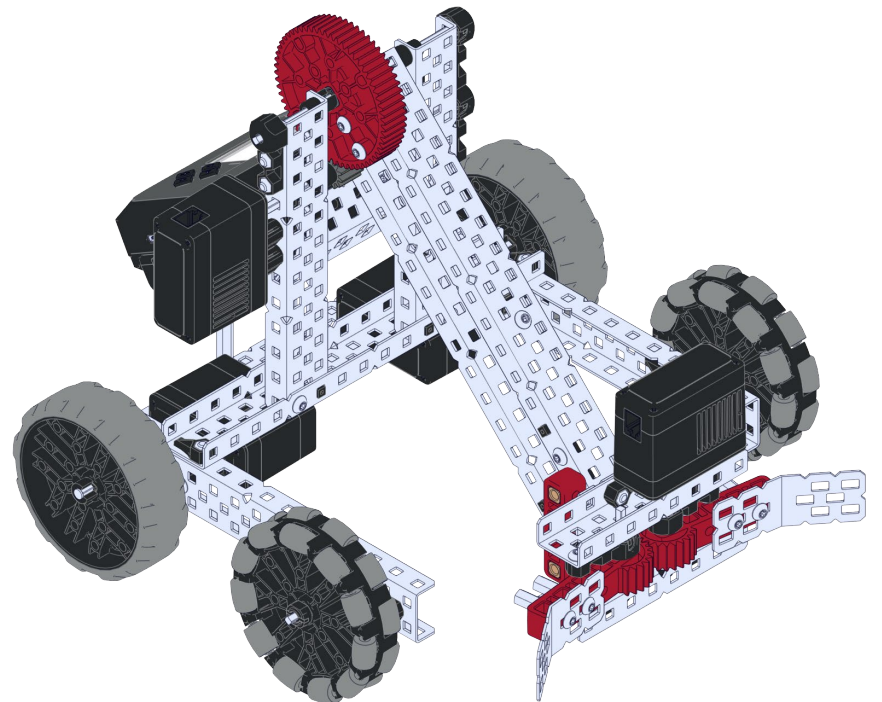
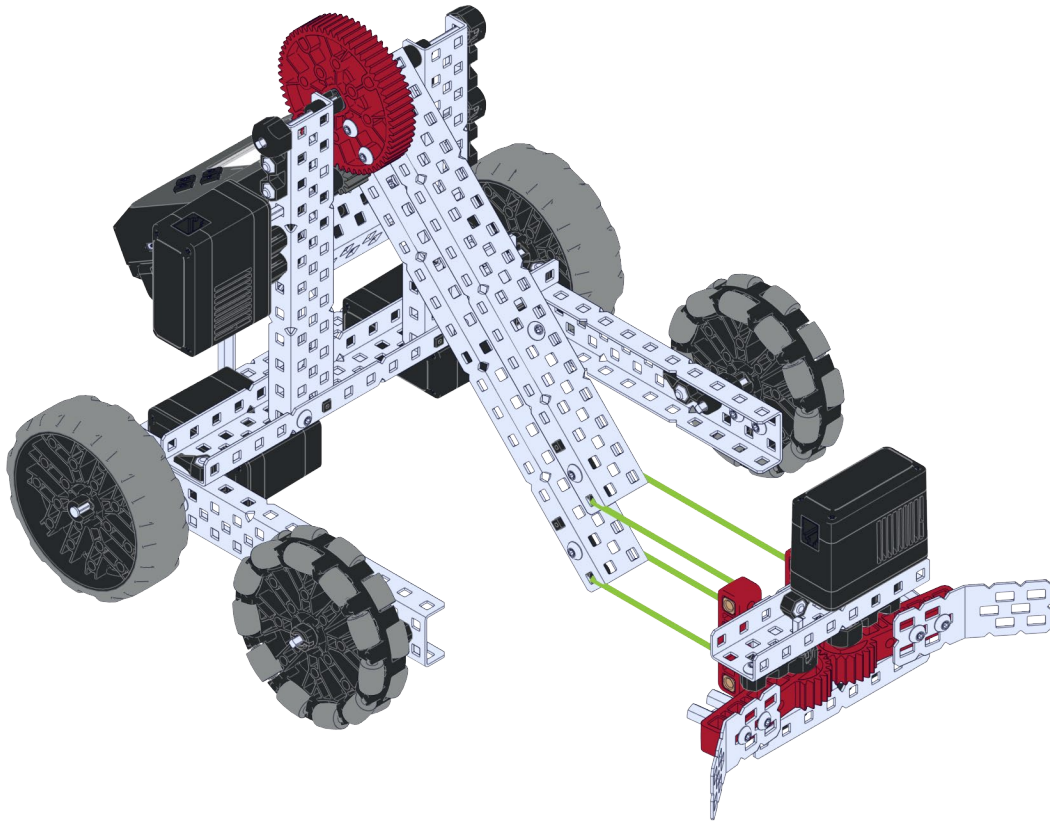


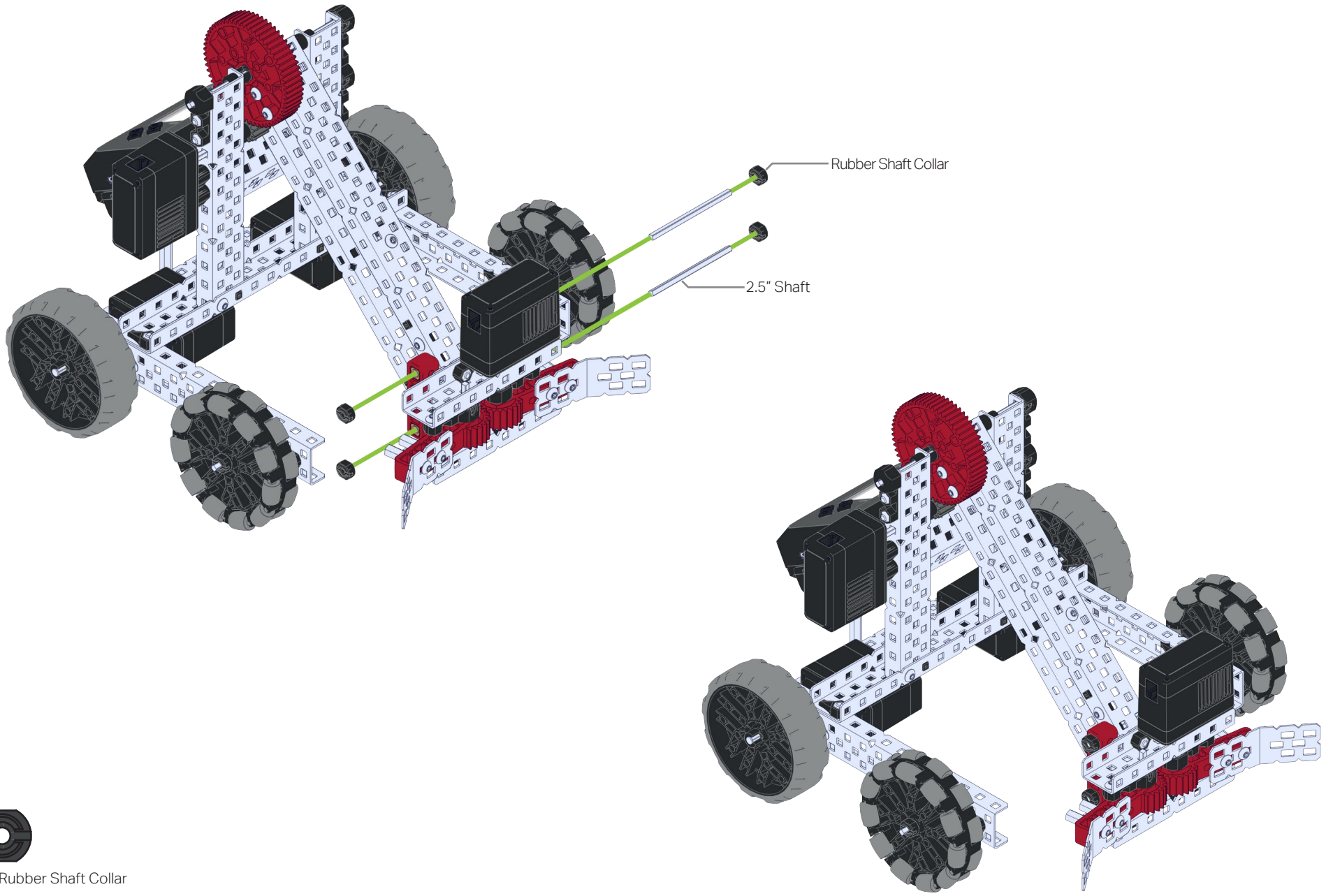
1x 1 Post Standoff Retainer



4x High Strength Shaft Adapter  
(#8 Round Bore, 1/2" Long)



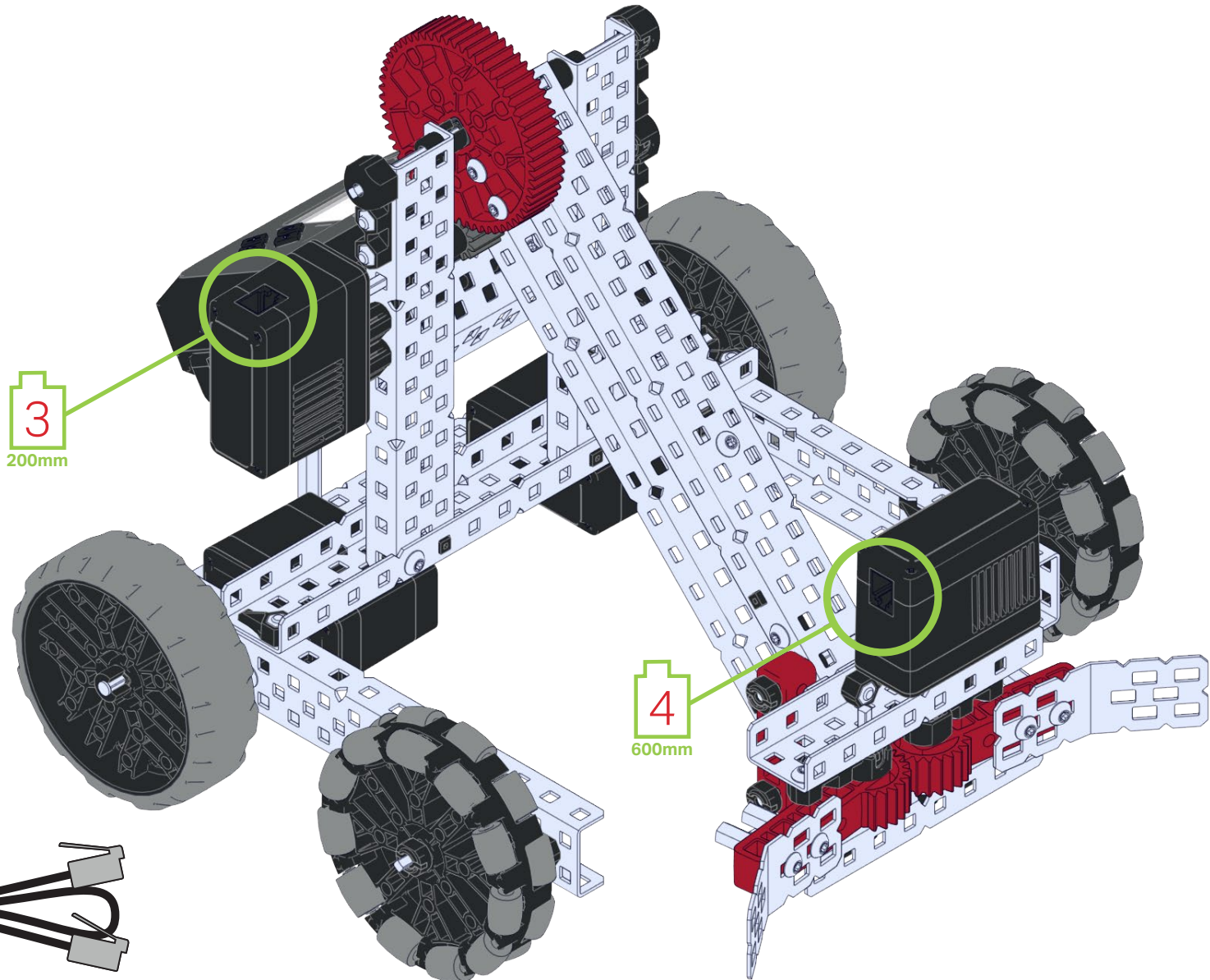




4x Rubber Shaft Collar



2x 2.5" Shaft



3  
200mm

4  
600mm



1x 200mm Smart Cable



1x 600mm Smart Cable

# EXP Clawbot Build Instructions

280-7735-752 Rev4



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